

**MILESTONE I REPORTING COMPANY**

TOMORROW'S TECHNOLOGY TODAY

407.423.9900

Fax 407.841.2779

Toll Free 855-MYDEPOS



1 IN THE UNITED STATES DISTRICT COURT  
2 FOR THE DISTRICT OF NORTH DAKOTA  
3 EASTERN DIVISION

**CONDENSED**

4  
5 CASE NO.: 3:18-CV-256-DLH-ARS

6  
7 NUTECH ORCHARD REMOVAL,  
8 LLC, A CALIFORNIA LIMITED LIABILITY  
9 COMPANY,  
10 PLAINTIFF,

11  
12 VS.

13  
14 DURATECH INDUSTRIES,  
15 INTERNATIONAL, INC., A NORTH  
16 DAKOTA CORPORATION,  
17 DEFENDANT.

18 \_\_\_\_\_/

19 DEPOSITION OF JOHN THOMAZIN

20 DATE: MARCH 6, 2020

21 REPORTER: ASHLEY MCLEAN

22 PLACE: FORENSIC ENGINEERING TECHNOLOGIES

23 3626 QUADRANGLE BOULEVARD

24 SUITE 200

25 ORLANDO, FLORIDA 32817

EXHIBIT 3

3:18-CV-256

<p style="text-align: right;">2</p> <p>1 APPEARANCES</p> <p>2</p> <p>3 ON BEHALF OF THE PLAINTIFF, NUTECH ORCHARD</p> <p>4 REMOVAL, LLC:</p> <p>5 STEVEN J. LEIBEL, ESQUIRE</p> <p>6 GERMOLUS KNOLL &amp; LEIBEL, LLP</p> <p>7 1915 NORTH KAVANEY DRIVE</p> <p>8 BISMARCK, NORTH DAKOTA 58502</p> <p>9 TELEPHONE NO.: (701) 255-2010</p> <p>10 E-MAIL: STEVE@GERMOLUSKNOLL.COM</p> <p>11 ON BEHALF OF THE DEFENDANT, DURATECH</p> <p>12 INDUSTRIES:</p> <p>13 JUSTIN D. EICHMANN, ESQUIRE</p> <p>14 HOUGHTON BRADFORD WHITTED, PC, LLO</p> <p>15 6457 FRANCES STREET</p> <p>16 SUITE 100</p> <p>17 OMAHA, NEBRASKA 68106</p> <p>18 TELEPHONE NO.: (402) 344-4000</p> <p>19 FACSIMILE NO.: (402) 930-1099</p> <p>20 E-MAIL: JEICHMANN@HOUGHTONBRADFORD.COM</p> <p>21 ALSO PRESENT:</p> <p>22 JAY GROTRIAN - PRESIDENT OF DURATECH</p> <p>23</p> <p>24</p>	<p style="text-align: right;">4</p> <p>1 STIPULATION</p> <p>2</p> <p>3 THE DEPOSITION OF JOHN THOMAZIN, TAKEN AT</p> <p>4 FORENSIC</p> <p>5 ENGINEERING TECHNOLOGIES, 3626 QUADRANGLE</p> <p>6 BOULEVARD,</p> <p>7 ORLANDO, FLORIDA 32814 ON FRIDAY THE 6TH DAY</p> <p>8 OF MARCH</p> <p>9 2020 AT APPROXIMATELY 8:57 A.M.; SAID</p> <p>10 DEPOSITION WAS</p> <p>11 TAKEN PURSUANT TO THE FEDERAL RULES OF CIVIL</p> <p>12 PROCEDURE.</p> <p>13</p> <p>14</p> <p>15</p> <p>16</p> <p>17</p> <p>18</p>
<p style="text-align: right;">3</p> <p>1 INDEX</p> <p>2 Page</p> <p>3 PROCEEDINGS 5</p> <p>4 DIRECT EXAMINATION BY MR. LEIBEL 5</p> <p>5</p> <p>6 EXHIBITS</p> <p>7 Exhibit Page</p> <p>8 1 NOTICE OF DEPOSITION 33</p> <p>9 2 FILE NOTES 34</p> <p>10 3 INVOICE 36213 37</p> <p>11 4 PRELIMINARY ENGINEERING REPORT 40</p> <p>12 5 ENGINEERING REPORT 70</p> <p>13 6 INVESTIGATIVE REPORT PREPARED BY</p> <p>14 JOSH RODGERS 92</p> <p>15</p> <p>16</p> <p>17</p> <p>18</p> <p>19</p> <p>20</p> <p>21</p> <p>22</p> <p>23</p> <p>24</p> <p>25</p>	<p style="text-align: right;">5</p> <p>1 PROCEEDINGS</p> <p>2 COURT REPORTER: Please raise your right hand</p> <p>3 for me. Do you solemnly swear or affirm that the</p> <p>4 testimony you're about to give in this case will be</p> <p>5 the truth, the whole truth, and nothing but the</p> <p>6 truth?</p> <p>7 THE WITNESS: I do.</p> <p>8 DIRECT EXAMINATION</p> <p>9 BY MR. LEIBEL:</p> <p>10 Q Will you please state your name for the</p> <p>11 record?</p> <p>12 A John A. Thomazin.</p> <p>13 Q Mr. Thomazin, we met a few minutes ago. My</p> <p>14 name is Steve Leibel. I represent the plaintiff in this</p> <p>15 case, NuTech. Have you ever had your deposition taken</p> <p>16 before?</p> <p>17 A Yes.</p> <p>18 Q About how many times?</p> <p>19 A Ten, 15.</p> <p>20 Q When was the most recent time?</p> <p>21 A Two years ago, approximately.</p> <p>22 Q As you are probably aware, there's some</p> <p>23 general rules for taking a deposition, primarily based</p> <p>24 on the fact that we have a court reporter here that's</p> <p>25 taking down everything you say and everything I say.</p>



**MILESTONE | REPORTING COMPANY**

TOMORROW'S TECHNOLOGY TODAY

407.423.9900

[www.MILESTONEREPORTING.com](http://www.MILESTONEREPORTING.com)

CORPORATE ORLANDO, FL 32801  
JACKSONVILLE, FL 32256  
TAMPA, FL 33602

Toll Free 855-MYDEPOS

<p style="text-align: right;">6</p> <p>1 Rule number one is that in a normal conversation, a lot 2 of times you'll know where I'm going before I even 3 finish the question. Because we have a reporter that's 4 having to type when you and I talk, it's really 5 important that you let me finish my question before you 6 give an answer. Second, you know, a normal conversation 7 has a lot of non-verbal communications, shaking the 8 head, nodding the head. There's also a lot of shorthand 9 like, "uh-uh," "uh-huh" that I'll certainly understand 10 what you mean as I'm sitting here today, but the 11 reporter can't really take those types of things down. 12 And so you may notice, you know, if I interrupt you and 13 say, is that a yes, or, is that a no, the reason I'm 14 doing that is so we're making a clean record. 15 A Yes. 16 Q Also the -- you know, we -- I'm going to try 17 and take a break about every 50 minutes to an hour. I 18 don't know that we're going to go up to lunch today, but 19 we'll see. If at any point, though, you'll feel like 20 you need a break, you know, to get a drink or use the 21 bathroom, anything like that, just let me know. If I've 22 asked you a question, I will ask you to give me an 23 answer before we take a break. But other than that, 24 it's, you know, this isn't -- as you know, this isn't an 25 endurance contest or anything like that. I'm also going</p>	<p style="text-align: right;">8</p> <p>1 A No. I have not. 2 Q Can you please summarize for me your formal 3 education that you have? 4 A Yes. I have an undergraduate degree from 5 University of Nebraska-Lincoln. My undergraduate degree 6 was in -- is in mathematics, minor in physics, and 7 speech communications. Then -- 8 MR. LEIBEL: Are we talking too fast? 9 COURT REPORTER: You're good. You're fine. 10 THE WITNESS: Okay. I'll slow down. 11 COURT REPORTER: Okay. 12 BY MR. LEIBEL: 13 A Yes. I'm sorry. Minor in speech 14 communications. Master's degree from the University of 15 Nebraska-Lincoln in mechanical engineering. Graduated 16 in 1993 with that degree. Then the education 17 thereafter, it's been continuing education courses to 18 maintain my professional engineering license and various 19 other -- various other courses. 20 Q When did you obtain your professional engineer 21 license? 22 A 2003 from the state of Nebraska. 23 Q Have you, during any of your coursework or 24 continuing ed -- your university coursework or your 25 continuing education, has any of your classes or work</p>
<p style="text-align: right;">7</p> <p>1 to ask a few questions about your background and then 2 I'm going to jump right into kind of the issues in this 3 case, the report you've issued, things like that. You 4 know, that's not -- I'm just trying to conserve all of 5 our time and get this completed as fast as we can, okay? 6 A Yes. 7 Q Mr. Thomazin, where do you currently reside? 8 A I reside here in Orlando, Florida at 1002 9 Alcock Road. 10 Q How long have you lived in Orlando? 11 A For one month. 12 Q Where did you live before that? 13 A Columbus, Nebraska. 14 Q How long did you live in Columbus? 15 A 18 years. 16 Q Are you married? 17 A Yes. 18 Q Do you have any kids? 19 A I have three children. 20 Q Do any of your children live in North Dakota? 21 A No. 22 Q Do you have any connections to the state of 23 North Dakota? Any family there, anything like that? 24 A No. I do not. 25 Q Have you ever been there?</p>	<p style="text-align: right;">9</p> <p>1 dealt with bearings? 2 A It related to -- the coursework related to 3 bearings in terms of stress analysis and -- and heat 4 transfer. 5 Q Can you summarize for me your work history 6 while you lived in Columbus, your 18 years there. 7 A Yes. In -- while I lived in Columbus, I 8 worked for a company in Fremont, Nebraska called RK 9 Aerials. They make the ladders for fire trucks. I 10 worked there approximately a year-and-a-half. 11 Thereafter, I started an engineering company called 12 Finite Element Solutions. And that -- I did that for 13 approximately around 12 months. Then I went to work for 14 Behlen Manufacturing in Columbus, Nebraska where I 15 worked as a design engineer, and as a -- also a plant 16 engineer, and I did various sorts of activities such as 17 Six Sigma trying to get the -- trying to get the plant 18 efficiencies up. Also do -- do building design and -- 19 and machine design. And I was also a trouble-shooter 20 for -- for Behlen Manufacturing. And then after Behlen 21 Manufacturing, I started my own company called Ready 22 Engineering. Ready Engineering was a consulting company 23 where I -- my business was split between engineering 24 consulting, claims investigations, and forensic work. 25 And the percentage of my work was roughly a third</p>



**MILESTONE | REPORTING COMPANY**

TOMORROW'S TECHNOLOGY TODAY

407.423.9900

[www.MILESTONEREPORTING.com](http://www.MILESTONEREPORTING.com)

CORPORATE ORLANDO, FL 32801  
JACKSONVILLE, FL 32256  
TAMPA, FL 33602

Toll Free 855-MYDEPOS

<p style="text-align: right;">10</p> <p>1 between each one of those activities. Then after Ready 2 Engineering, I came to work for Forensic Engineering 3 Technologies here in Orlando. 4 Q About how long did you work with Behlen 5 Manufacturing? 6 A I worked -- I worked there approximately two- 7 and-a-half years. 8 Q How about at Ready Engineering, how long were 9 you there? 10 A Ready Engineering was 17 years. For no -- 11 excuse me. Correction, it was 13 years and some. 12 Q Did any part of your normal, or the work you 13 did at Behlen Manufacturing, did any of that provide you 14 with experience that you think is relevant to the 15 opinions you've given in this case? 16 A I -- I don't understand what you're talking 17 about. 18 Q Okay. Well, I'm trying to get some summaries 19 from you without walking through each of your prior 20 employers. 21 A Yes. 22 Q I'm trying to get a feel for -- in your work 23 experience that time that you were in Columbus, what 24 part of your work experience do you believe is 25 particularly relevant to the issues that were -- that</p>	<p style="text-align: right;">12</p> <p>1 what the -- a problem you had to diagnose and fix or 2 something you are particularly proud of? Some work you 3 did? 4 A Yes. One example involves the plasma cutter 5 machine on the beam line. The -- the main frames in a 6 rigid frame building account for approximately 45 7 percent of the cost of the building. So if -- if the 8 company can figure out how to increase throughput or 9 efficiencies in the beam line, they reduce their costs 10 and potentially make more money. So my job was to -- 11 one of the first things that I did was gather data from 12 the plasma cutter. With that data, I did some analysis 13 on it. I found out that it would break down about every 14 21 days. When it was down for -- when it was broke 15 down, it would -- it would be out of service for two, 16 two-and-a-half hours. And when it was out of service, 17 that meant loss of production and productivity, loss of 18 -- we couldn't pro -- we couldn't meet orders. And so I 19 suggested to -- to the company and to the management 20 that they lease a machine and also purchase the 21 maintenance agreement that comes with that machine. And 22 I also recommended to them that the new machine would be 23 a lot faster and more efficient. And then so they -- 24 they needed to also automate the loading and unloading 25 of that machine. Which -- which they didn't do, but --</p>
<p style="text-align: right;">11</p> <p>1 you analyzed in this case? 2 A One of the -- one of my job duties at Behlen 3 Manufacturing was to troubleshoot problems, so I was a 4 problem solver, okay? I would -- I would be sent out on 5 an assignment when there'd be a building -- a building 6 malfunction or building failure or equipment 7 malfunction. And my job was to figure out why it 8 doesn't work and how to fix it and make it better. So 9 -- and so in that sense, problem solving directly 10 relates to -- to what I did in this case. 11 Q So does Behlen have, like, a plant and you're 12 an engineer that worked for them and they would say, 13 hey, we've got a problem, you know, over in building A. 14 Go figure it out. Is that kind of what you're -- 15 A Yes. That's exactly what I'm saying. They -- 16 they tasked me -- the president of the company tasked me 17 with certain -- certain projects that he had. Some of 18 them were high priority and some of them were -- some of 19 them were lower priority, but they were projects that he 20 was comfortable sending me out on and -- and having me 21 solve and getting -- and getting solutions for him. So 22 he -- he knew that that was part of my skill-set, that I 23 enjoyed doing it, I was good at it, and I delivered some 24 fantastic results for the company while I worked there. 25 Q Okay. Can you give me one example of, like,</p>	<p style="text-align: right;">13</p> <p>1 but they purchased the machine. It increased 2 productivity so much that it created other problems, but 3 -- that's an example of one thing that -- that I did. 4 And it had a -- it had a six-month ROI. And it was -- 5 it was one of the projects that I -- it was one example 6 of a project that I did that had a big impact on the 7 company. 8 Q Now, you -- after leaving Behlen, you went to 9 Ready Engineering, and I'm going to start by -- you 10 broke it into three groups. Engineering claims and 11 forensic work. I would like you to explain for me the 12 -- start and explain what you mean by, a third of your 13 work was claims. 14 A With a claims investigations, the insurance 15 companies would call me and request that I in -- 16 investigate failures, anything from power failures, to 17 roof failures, to water intrusion in buildings, to 18 foundation failures. And -- and it was just really 19 random, but every -- every aspect of -- of property and 20 casualty claims. So that's -- I also did -- I also -- I 21 also did claims for residential. So that -- those would 22 involve hail investigations for roofs? They would call 23 me and -- typically the insurance companies would call 24 me in when the claim was difficult and there was some 25 issue involved where there might be a mediation or</p>



**MILESTONE | REPORTING COMPANY**

TOMORROW'S TECHNOLOGY TODAY

407.423.9900

www.MILESTONEREPORTING.com

CORPORATE ORLANDO, FL 32801  
JACKSONVILLE, FL 32256  
TAMPA, FL 33602

Toll Free 855-MYDEPOS

<p style="text-align: right;">14</p> <p>1 litigation involved, so --</p> <p>2 Q So as part of the insurance claims side, were</p> <p>3 any of the cases -- did they involve, you know, kind of</p> <p>4 the type of claim that we're dealing with in this case?</p> <p>5 Like a product defect or a product liability claim, or</p> <p>6 were they pretty much property damage, construction</p> <p>7 loss, things like that?</p> <p>8 A They were property damage and -- property and</p> <p>9 casualty type losses.</p> <p>10 Q Okay.</p> <p>11 A And they -- however, they did -- they were</p> <p>12 property and casualty type losses that also involved</p> <p>13 plumbing type systems, you know, when there was</p> <p>14 components that had failed in -- in a building. They</p> <p>15 needed to be investigated and explained why they did</p> <p>16 fail.</p> <p>17 Q And as part of your work doing claims, is that</p> <p>18 where, you know, the type of work where you would have,</p> <p>19 you know, go on-site, collect data, take measurements,</p> <p>20 things like that in order to offer an opinion?</p> <p>21 A Yes.</p> <p>22 Q Now, you also mentioned that while at Ready</p> <p>23 Engineering, you did some forensic work. Can you</p> <p>24 explain what you meant when you said "forensic work"?</p> <p>25 A It's the work that I do. It's similar to the</p>	<p style="text-align: right;">16</p> <p>1 auger, one of the support arms on the auger buckled. The</p> <p>2 auger collapsed and crushed him, and -- and killed him.</p> <p>3 Another case involved a elevator leg where there was --</p> <p>4 where a company was -- was doing some repairs on it, and</p> <p>5 while they were preparing it, part of it collapsed and</p> <p>6 he was in the ladder cage. And at that -- just so hap</p> <p>7 -- that part of the -- that part of the cage actually</p> <p>8 got crushed while he was in it. Yeah, another --</p> <p>9 another product -- well, it's a -- another case involved</p> <p>10 in -- a communication tower out by Alliance, Nebraska.</p> <p>11 And the antenna on top of the 1,400 foot tower had --</p> <p>12 had fallen off the tower. And so my job was -- my job</p> <p>13 for the state of Nebraska was to figure out why the</p> <p>14 antenna, after having been in place for -- for seven</p> <p>15 years, would finally just topple off the tower.</p> <p>16 Q And then you said about a third of your work</p> <p>17 was what you characterized as engineering?</p> <p>18 A Yes.</p> <p>19 Q What does that mean to you?</p> <p>20 A That -- that kind of work involves project</p> <p>21 management, where I would -- where I would organize the</p> <p>22 design professionals for construction projects around</p> <p>23 the state of Nebraska. Those included everything from</p> <p>24 churches to fire stations to dance studios, hog</p> <p>25 confinements, boar breeding stations. And I would -- I</p>
<p style="text-align: right;">15</p> <p>1 work that I do here. I would do product liability type</p> <p>2 investigations. I would also investigate structural</p> <p>3 failures, also property casualty type claims with</p> <p>4 foundation failures, welding issues, some accident</p> <p>5 reconstruction, specifically farm accident</p> <p>6 reconstruction. And those were the kinds of cases that</p> <p>7 I got involved in with forensic engineering. It was --</p> <p>8 it was along the lines of troubleshooting and figuring</p> <p>9 out why things -- why things went wrong.</p> <p>10 Q Have you, as part of your, kind of, the</p> <p>11 forensic third of your work at Ready, can you give me an</p> <p>12 example of some product or some product liability cases</p> <p>13 that you've worked on?</p> <p>14 A One was the ladder. That was years ago. One</p> <p>15 was a ladder that was used by a homeowner who -- who had</p> <p>16 a component on that fail and was injured -- injured by</p> <p>17 that. Another product liability case involved a wire</p> <p>18 winder and the -- the specific issue in that case was</p> <p>19 whether or not a certain valve on that could be</p> <p>20 considered a safety device, and the -- the claim</p> <p>21 involved a person who had got entangled inside their --</p> <p>22 entangled with the wire winder and got injured. Another</p> <p>23 case involved a portable auger where a young farmer was</p> <p>24 tidying around his farmyard preparing for a fall</p> <p>25 harvest. While he was trying to move and manipulate the</p>	<p style="text-align: right;">17</p> <p>1 would interface with the -- well, with the owners and</p> <p>2 then figure out the requirements of the project and then</p> <p>3 organize the work with the design professionals so that</p> <p>4 they could -- so they could deliver the -- the contract</p> <p>5 or the construction documents so they could get</p> <p>6 permitted for a project. That was one thing that I did.</p> <p>7 The other thing that I did is a -- is a consultant --</p> <p>8 was a lot of stress analysis work. I did some work for</p> <p>9 a company called Sidump'r in Columbus, Nebraska and --</p> <p>10 and I evaluated the bumper on their side dumper trailer.</p> <p>11 The -- the bumper on their trailer has to absorb so much</p> <p>12 energy in a collision, and I was asked by the owner of</p> <p>13 the company to do some finite elements so -- to model it</p> <p>14 in the computer and -- and figure out a best way to</p> <p>15 configure and design this component so that it would</p> <p>16 absorb energy and also be easy to replace if it was in a</p> <p>17 collision. So I was able to come up with several</p> <p>18 designs, design alternatives for him so that he could</p> <p>19 implement it on his trailer. I've also done -- I've</p> <p>20 also done some additional work for him with -- with</p> <p>21 finite element analysis. He has a -- he has a product</p> <p>22 called the batch box and it was originally a welded -- a</p> <p>23 weldment, so the entire framework was welded. He</p> <p>24 started to sell those overseas to Australia, and he</p> <p>25 quickly found out that his weldments don't fit in the</p>



**MILESTONE | REPORTING COMPANY**

TOMORROW'S TECHNOLOGY TODAY

407.423.9900

[www.MILESTONEREPORTING.com](http://www.MILESTONEREPORTING.com)

CORPORATE ORLANDO, FL 32801  
JACKSONVILLE, FL 32256  
TAMPA, FL 33602

Toll Free 855-MYDEPOS



<p style="text-align: right;">18</p> <p>1 shipping container very well, so he redesigned the  2 products so that it was just all bolted connections so  3 he could ship it more easily. So I'd been tasked with  4 the job of checking to make sure that all of his bolted  5 connections and his bolts don't fail when it's  6 assembled. Yeah, other design projects that I do  7 involve buildings and structures. There's manufacturers  8 that want to reconfigure -- reconfigure their floor  9 layout, and so they want to move columns or they want to  10 put doors inside walls or end walls, and they need  11 someone to do the analysis to make sure that the changes  12 that are made and the modifications that are made to the  13 building will be able to withstand the applied forces on  14 the building. The other thing that I've done is certify  15 fall protection systems. A lot of the manufacturers have  16 requirements with their racking systems inside the  17 plant, so that -- and also their other lifting systems  18 so that they have to be load-rated. So I do the stress  19 analysis on that to determine what the maximum load can  20 be so that -- so that they can put their load rating on  21 the -- on the equipment and then also file their  22 paperwork so that if jurisdictional authority came by,  23 they could show them the paperwork and that the analysis  24 had been done.  25 Q When you say load, can you explain that a</p>	<p style="text-align: right;">20</p> <p>1 Q Okay.  2 A So it'd be that Sidump'r trailer.  3 Q Okay.  4 A It'd be the aerial ladders when I worked in  5 Fremont, Nebraska, that it could be considered an  6 industrial type platform.  7 Q And what's an aerial ladder?  8 A It's -- it's the ladder that the firemen use  9 to scurry up to the top of the building.  10 Q Okay. Other than the ladder and the bumper,  11 is there anything else that comes to mind?  12 A The batch box is another one. The -- the work  13 -- the work on the -- on the buildings. There's another  14 -- there's another -- those are usually -- those are  15 commercial buildings. So -- heavy framework. Some of  16 the framework involves cranes, bridge cranes.  17 Q Okay. What's a batch box?  18 A The batch box is a -- is the name of his  19 product and it is simply a box that has hydraulic  20 cylinders loaded to it that they can pre-load, and it's  21 used to -- first of all, to set up the scenario. He  22 uses it in a large commercial feed lot where there's  23 thousands and thousands of cattle. And he -- he  24 manufacturers this product so that the front-end loader  25 operator can pre-load that batch box, okay, so that when</p>
<p style="text-align: right;">19</p> <p>1 little bit better? Does that mean you're measuring how  2 much weight on a particular platform? Is that -- is  3 that --  4 A Yes. So say for example, in Home Depot,  5 you've got all those shelves, okay? They need to know  6 how much weight -- pallet weight they can put on that.  7 Q Okay. Is that something when calculating  8 that, is that something where you're just doing testing?  9 You know, how much weight did, you know, that it appears  10 to hold or are you going to the level of evaluating the  11 materials of the actual, you know, shelf to determine  12 what the strength weight? How do you actually do that  13 when you're calculating a load weight?  14 A I take their design, their CAD designs, and I  15 -- I convert those CAD designs into a -- into a model.  16 And I use the material strength and the shape of each  17 component, and I model that on a computer and do a  18 stress analysis that way.  19 Q Okay. Okay. Now you talked a little bit  20 about your work in engineering and designing a bumper.  21 Do you have any experience -- and I'm going to try and  22 start broad and try and narrow it down. Do you have any  23 experience in the engineering or design of heavy  24 equipment, farm equipment?  25 A Yes.</p>	<p style="text-align: right;">21</p> <p>1 the driver comes by, he doesn't have any weld time. He  2 can pull up to the batch box, and batch box unloads into  3 his -- into his feeder -- feed wagon. And then he can  4 go out and feed the next lot of cattle.  5 Q Okay. And when I say "heavy equipment," I'm  6 talking about semi-trucks, tractors, farm implements. Do  7 you have any work in the engineering or design, other  8 than what you've already mentioned, on heavy equipment?  9 A Other kind of work, I mean, the kind of stress  10 analysis that I do relates to design in heavy equipment.  11 It's -- it's directly related to the kind of analysis  12 that would be done with heavy equipment.  13 Q Okay.  14 A In fact -- in fact, the -- the skill-set that  15 I have is -- is something that most heavy manufacturing  16 equipment -- or many manufacturers don't have, so I  17 bring a unique skill-set.  18 Q Okay. And I don't claim by any stretch to be  19 fluent in the whole other language that engineers use.  20 When you say stress analysis, explain to a dummy like  21 me, what are you talking about? What is that skill-set  22 you're talking about?  23 A Well, one of those skill-sets would -- say,  24 for example, when you're in a car crash, okay? One of  25 the -- one of the things that engineers are interested</p>



**MILESTONE | REPORTING COMPANY**

TOMORROW'S TECHNOLOGY TODAY

407.423.9900

[www.MILESTONEREPORTING.com](http://www.MILESTONEREPORTING.com)

CORPORATE ORLANDO, FL 32801  
JACKSONVILLE, FL 32256  
TAMPA, FL 33602

Toll Free 855-MYDEPOS

<p style="text-align: right;">22</p> <p>1 in is making sure that the driver's compartment, the  2 passenger's compartment are safe during the car crash.  3 And one way you could do that, of course, is testing.  4 That gets very expensive. The other way you can do that  5 is mathematically and use computers, and you can  6 simulate the car crash, okay? And during that car  7 crash, there's lots of noise. The metal deforms and it  8 also absorbs energy. And so as an engineer doing stress  9 analysis, I'm interested in the deformation of that  10 metal and -- and figuring out where the stress flows  11 throughout that -- that car body, for example, during a  12 car crash. Because one of the goals that we want to  13 have -- one of the goals as an engineer is you want to  14 make a front end of a car -- for any collision, you want  15 the front end of the car to be soft, the cage around the  16 occupants of the car to be relatively stiff so that most  17 of the energy gets absorbed by the engine you have in  18 the front end of the car and the people in the cab stay  19 safe. And you can do that. You can do that with stress  20 analysis or simulation. It also goes by the name of  21 computer aided engineering.  22 Q Okay. Now, when doing a stress analysis of  23 that type, do you need the type of, you know, because I  24 assume every different vehicle has a different, and I  25 think lawyers we call it crash worthiness, but I suppose</p>	<p style="text-align: right;">24</p> <p>1 files and numbers.  2 Q Yeah. Well, and I suppose part of the reason  3 you use the computer is it would take a long time to do  4 all those equations by hand as you translate an impact  5 from the front bumper to the actual --  6 A There's -- there's millions and millions of  7 equations.  8 Q Now, for any of your three categories of work  9 that you did at Ready Engineering, did you ever work  10 with grinders before?  11 A No. I haven't had any assignment with a  12 grinder. Oh, excuse me, I take that back. In -- in  13 2008, I did some consulting work for Mighty Giant  14 Grinder, which is located in Beemer, Nebraska.  15 Q What kind of grinders does Mighty Giant make?  16 A They make tub grinders and I think they have a  17 horizontal grinder now.  18 Q Do you remember exactly what kind of work they  19 asked you to do, what the scope of your assignment was  20 with them?  21 A They were redesigning their grapple arm. They  22 have -- they have a machine where the operator sits on  23 the -- sits on the -- he has a cab and has a platform  24 and he's able to operate a -- a grapple so he can pick  25 and place hay from -- from the side of the machine and</p>
<p style="text-align: right;">23</p> <p>1 every vehicle is different; is that fair?  2 A That's fair.  3 Q So as an engineer, you need the data that  4 shows with respect to that particular vehicle, you know,  5 the materials that's used, the underlying design. I  6 mean, is that what you're talking about when you say you  7 try to model it?  8 A Yes. Yeah, I need to know -- I need to know  9 the materials, I need to know the geometry, the shape of  10 the materials used because -- because the strength, the  11 strength of -- the strength of the product is dependent  12 upon not only this material, but also the geometry.  13 Q Okay. And when you're performing those types  14 of analysis, are you actually typing data into a  15 computer and then a computer runs the functions for you?  16 How does that work?  17 A What -- what it involves is a -- there's an  18 input file where you -- where you set up the model,  19 input the -- the material data, the -- the geometry, and  20 so forth. Then that -- then that goes into another  21 program that solves the -- for the stresses and the  22 strains. And then there's a third program that -- that  23 lets you visualize all that data.  24 Q Okay.  25 A So otherwise -- otherwise, it's just files and</p>	<p style="text-align: right;">25</p> <p>1 place it into the top grinder. And so they -- I  2 think -- I think they've extended the length of the arm  3 and they wanted to make sure that their new  4 configuration wasn't overstressed.  5 Q And so help me understand when, you know, a  6 manufacturer comes to you -- and we'll use this Mighty  7 Giant as the example -- when they come to you and they  8 say, hey, we've got a grinder, we extended the arm and  9 we need your help, John, in telling us, you know, is  10 this going to work. Did we overextend ourselves to  11 oversimplify. What kind of information do you ask for  12 from them?  13 A I need to know the materials, the yield  14 strength.  15 Q The what?  16 A The -- well, when I know the -- when I know  17 what materials they're using then I have an idea of  18 their yield strength. What kind of -- what kind of  19 safety factor they want.  20 Q What does that mean? What is a safety factor?  21 A A safety factor would be -- would be a stress  22 level that would be proportional to some -- to -- to the  23 value of the yield stress. So the yield stress is the  24 point in the material that which yield occurs and  25 plastic deformation occurs thereafter. So generally the</p>



407.423.9900

MILESTONE | REPORTING COMPANY

TOMORROW'S TECHNOLOGY TODAY

www.MILESTONEREPORTING.com

CORPORATE ORLANDO, FL 32801  
JACKSONVILLE, FL 32256  
TAMPA, FL 33602

Toll Free 855-MYDEPOS

<p style="text-align: right;">26</p> <p>1 machines are run in the elastic range. And so when --</p> <p>2 when the machines are designed -- when the machines are</p> <p>3 designed, they don't -- you don't want to be below that</p> <p>4 yield point. And so that fails -- that factor of safety</p> <p>5 is some number that's proportional to the yield strength</p> <p>6 of the material.</p> <p>7 Q Okay. Now, you know, talking about this</p> <p>8 grapple arm again. Once you know the type of material,</p> <p>9 do you also want to know, like, you know, how it's</p> <p>10 connected, how it's powered, those kind of things; is</p> <p>11 that relevant?</p> <p>12 A Yes. I guess -- I didn't finish -- I didn't</p> <p>13 finish with the material -- but in addition to the</p> <p>14 material, I also need to know the geometry. I need to</p> <p>15 know the connections. I need to know the weights that</p> <p>16 they're trying to lift. I need to know what kind of</p> <p>17 abuse that they might expect or anticipate, or that they</p> <p>18 can foreknow. And that's -- their operational</p> <p>19 conditions so that I can help advise them when I -- when</p> <p>20 I get some results and then -- and I report back to</p> <p>21 them.</p> <p>22 Q Let's say that as a manufacturer, I just hand</p> <p>23 you a piece of paper that has all the information you</p> <p>24 want. What do you do then? Do you take it back and</p> <p>25 start -- I mean, do you create a prototype and test? Do</p>	<p style="text-align: right;">28</p> <p>1 A Well, in the model, if -- if the -- the model</p> <p>2 would be able to -- the model would be able to tell me</p> <p>3 whether or not that material type was appropriate.</p> <p>4 Q Okay.</p> <p>5 A If there was -- if there was a hot -- say for</p> <p>6 example, a hot spot in the model where they were using</p> <p>7 plastic and they should've been using brass, for</p> <p>8 example. That and -- and the stress concentrated in</p> <p>9 that plastic, that would show up in the model. And so</p> <p>10 therefore, I could advise them that they need to choose</p> <p>11 some other material. Then I would -- then I would</p> <p>12 advise them what material -- what material would be best</p> <p>13 to use in that scenario.</p> <p>14 Q Okay. Because really what you're doing is</p> <p>15 you're hunting for the weakest link, right?</p> <p>16 A That's one of the things I do. Yes.</p> <p>17 Q Now in an example where you engineered a</p> <p>18 grappling arm. Did they ask you, you know, look, John,</p> <p>19 can you give us -- we're, you know, we have to issue a</p> <p>20 warranty on this. Can you give us an idea as to our</p> <p>21 rate of failure on this grapple arm?</p> <p>22 A No. No. That was not part of the scope.</p> <p>23 Q Is that something that manufacturers can</p> <p>24 figure out?</p> <p>25 A I'd have to know more about the personnel</p>
<p style="text-align: right;">27</p> <p>1 you just use, you know, run calculations? Is that how</p> <p>2 you do it? How does it work? What's that process like?</p> <p>3 A What I do is I create a virtual model of the</p> <p>4 system. Then I take that virtual model -- and well, I</p> <p>5 do create the virtual model in the computer. And then --</p> <p>6 -- and I use specialized software that's able to create</p> <p>7 or calculate the -- the stresses and simulate --</p> <p>8 simulate the loads on -- on the system. And the nice</p> <p>9 thing about using the computer is that I can go through</p> <p>10 several iterations of a design and come up with various</p> <p>11 answers and improve the design before a prototype is</p> <p>12 even made.</p> <p>13 Q Okay. And I suppose when you're using that</p> <p>14 kind of computer software, your model is only as good as</p> <p>15 the data that they give you; is that fair?</p> <p>16 A It's -- the model is -- the model is as -- as</p> <p>17 good as -- as limitations in the -- in the software will</p> <p>18 allow.</p> <p>19 Q Okay. And what I'm getting at is that they,</p> <p>20 you know, if the manufacturer forgets to tell you that,</p> <p>21 you know, they decided to use a plastic connection in</p> <p>22 the arm and they just forgot to mention that, like, you</p> <p>23 know we thought maybe plastic would work there. That</p> <p>24 that's obviously going to affect the reliability of your</p> <p>25 model; is that true?</p>	<p style="text-align: right;">29</p> <p>1 inside the manufacturing company. I -- I don't know.</p> <p>2 Q When you -- you'd have to know more about the</p> <p>3 personnel? Is that what you said?</p> <p>4 A Well, -- well, they -- they could -- they --</p> <p>5 depending upon the people -- the people inside the</p> <p>6 company could possibly figure that out. Whether or not</p> <p>7 -- whoever I'm interfacing with in the company, I just</p> <p>8 have limited information. So I -- a lot of times I'm</p> <p>9 literally given a piece of paper like you just described</p> <p>10 and they say go figure this out.</p> <p>11 Q Okay.</p> <p>12 A And that's really the only information I have</p> <p>13 and I have one point of contact. So I don't -- I don't</p> <p>14 have a relationship with the early warning side of the</p> <p>15 company to know what their capabilities are.</p> <p>16 Q Okay. Well, is that something a mechanical</p> <p>17 engineer can do? If they said, look, John, we want you</p> <p>18 to figure that out for us. We want to know some kind of</p> <p>19 a failure rate for this grapple arm you just helped us</p> <p>20 design. How do we do that?</p> <p>21 A There's -- yes, a mechanical engineer would</p> <p>22 have -- would have the knowledge -- the knowledge,</p> <p>23 training, and background to be able to figure out how --</p> <p>24 figure out that answer.</p> <p>25 Q And if the manufacturer accepted, you know,</p>



**MILESTONE | REPORTING COMPANY**

TOMORROW'S TECHNOLOGY TODAY

407.423.9900

[www.MILESTONEREPORTING.com](http://www.MILESTONEREPORTING.com)

CORPORATE ORLANDO, FL 32801  
JACKSONVILLE, FL 32256  
TAMPA, FL 33602

Toll Free 855-MYDEPOS



<p style="text-align: right;">30</p> <p>1 kind of your suggestions on the grapple arm. And they  2 said, you know, we have a prototype sitting on the lot.  3 You know, it seems to work great. We need to do some  4 type of a analysis as to what our use life is going to  5 be on that arm that you're now, you know, familiar with,  6 at least. John, can you do it? How do you do it? How  7 do we do that?  8 A Say -- say that again?  9 Q Yeah, if the grapple arm's been built on the -  10 - on this grinder from Mighty Giant. And they want to  11 know, what is our, you know, our duty life-cycle for  12 this arm. We have to issue a warranty. You know, do we  13 warrant this for a year? Do we warrant it for five  14 years? What kind of a use-life are we going to have on  15 this? How do you figure that out?  16 A I would figure that out -- well, the analysis  17 would include the stress analysis on the arm, okay? If  18 -- if that -- if that passed and it was within the  19 operation -- if it was acceptable, then the duty life is  20 related to the load that it lifts and also -- also the  21 fatigue cycle of material that are being used. So  22 that's basic material -- that's material science and  23 it's a well-established science. And so that's how you  24 would figure out how long the equipment could last.  25 Q And part of the reason I'm asking this is, you</p>	<p style="text-align: right;">32</p> <p>1 you said, a third of the work was claims and a third of  2 your work was forensic?  3 A Yes.  4 Q How do you differentiate claims and forensic  5 work with respect to, like, lawsuits? Kind of, like,  6 you know, what we're doing in this case. Which basket  7 would a case like this fall into?  8 A A forensic. The differentiator -- is that  9 what you're after?  10 Q Yeah.  11 A The forensic work would come from an attorney.  12 Q Okay.  13 A The claims would typically come from a claims  14 manager in a -- in an insurance company.  15 Q And sometimes claims become lawsuits also,  16 right?  17 A Yes.  18 Q Okay. And maybe that's where I was -- I only  19 see lawsuits and non-lawsuits. I didn't get that  20 distinction between forensic and claims.  21 A Yes.  22 Q About what percentage of your work do you do  23 as a -- and I'll just use in -- I'll limit this to the  24 last five years at Ready. What percentage of your work  25 is plaintiffs as opposed to defendants?</p>
<p style="text-align: right;">31</p> <p>1 know, that non-engineers like me, you know, you see the  2 ads for, like, Ford and they show pictures where they're  3 running their, you know, they've got the pickup kind of  4 up on a hoist and it's running and the wheels are just  5 spinning on two barrels, you know. So they can spin but  6 not move. And they say, look, we're good for -- you  7 have a 50,000-mile engine warranty or stuff like that.  8 Is there any component that when you're evaluating the  9 grapple arm that you would say, look, we have perform  10 some repetitive testing or things like that?  11 A No. And when it comes to -- when it comes to  12 a lifting arm, the high stress points are the  13 connections just because of the nature of the geometry.  14 So those would be the areas that -- that you would in a  15 simulation, you'd be able to tell whether more analysis  16 was needed and then whether or not the prototype was  17 accurate or whether you wanted to build a prototype at  18 that point.  19 Q Okay. So you would just run computer  20 simulations?  21 A Yes.  22 Q And the software to run those computer  23 simulations is available?  24 A Yes.  25 Q Now, when you talked about your work at Ready,</p>	<p style="text-align: right;">33</p> <p>1 A It -- it's evenly split roughly -- it's  2 roughly 50/50.  3 Q Have you ever -- while you were employed at  4 Ready Engineering, did you do any work for DuraTech, in  5 the past?  6 A No. I have not.  7 Q While you worked for Ready, have you ever  8 worked for Mr. Eichmann or his firm before?  9 A No.  10 Q I'm going to hand you what I've marked as  11 Exhibit 1.  12 (EXHIBIT 1 MARKED FOR IDENTIFICATION)  13 A Thanks.  14 Q And I'll represent to you, Mr. Thomazin, that  15 this was the notice of deposition duces tecum. And  16 regarding the deposition we're here today in this  17 document -- requested that you bring with you --  18 essentially your file in this matter, correct?  19 A Yes.  20 Q And you have shown me -- you've got a couple  21 of Red wells of documents, and I pulled some documents  22 from here. Is there anything else, other than what you  23 have sitting on the table here?  24 A This is my complete file.  25 MR. LEIBEL: Okay. And I have gone through</p>



**MILESTONE | REPORTING COMPANY**

TOMORROW'S TECHNOLOGY TODAY

407.423.9900

[www.MILESTONEREPORTING.com](http://www.MILESTONEREPORTING.com)

CORPORATE ORLANDO, FL 32801  
JACKSONVILLE, FL 32256  
TAMPA, FL 33602

Toll Free 855-MYDEPOS

<p style="text-align: right;">34</p> <p>1 your documents a little bit and pulled a couple</p> <p>2 things out of your file that I've made copies of</p> <p>3 before we started today. The first one -- can we go</p> <p>4 off the record for a second.</p> <p>5 (OFF THE RECORD)</p> <p>6 COURT REPORTER: Back on.</p> <p>7 MR. LEIBEL: We're just going to go through</p> <p>8 these documents, then we can take quick break.</p> <p>9 Okay.</p> <p>10 THE WITNESS: Sure.</p> <p>11 MR. LEIBEL: Can we go back off the record real</p> <p>12 quickly.</p> <p>13 COURT REPORTER: Off the record?</p> <p>14 MR. LEIBEL: Yeah.</p> <p>15 (OFF THE RECORD)</p> <p>16 BY MR. LEIBEL:</p> <p>17 Q Okay. Can you tell me what the documents in</p> <p>18 Exhibit 2 represent?</p> <p>19 (EXHIBIT 2 MARKED FOR IDENTIFICATION)</p> <p>20 A Yes. The first page that's marked "File notes</p> <p>21 018553." That's our file number here at Forensic</p> <p>22 Engineering Technologies. It contains basic information</p> <p>23 about the case for -- for my reference -- our reference</p> <p>24 here. Just the date and the time of the incident,</p> <p>25 location, who I was retained by, on what date, then it</p>	<p style="text-align: right;">36</p> <p>1 A Paul Cheever [sic]. I believe his name is</p> <p>2 Paul Cheever. Paul Cheever -- I'll have to verify that</p> <p>3 but --</p> <p>4 Q Okay. What is Paul's position within the</p> <p>5 company?</p> <p>6 A He's a technician. Actually -- actually, he</p> <p>7 should be listed right here. Phil Cleaver.</p> <p>8 Q Okay.</p> <p>9 A Phil Cleaver -- correction. His position</p> <p>10 inside the company is as a technician. He goes out in</p> <p>11 the field and does accident reconstruction work,</p> <p>12 downloads data, takes pictures.</p> <p>13 Q Okay. And so when you prepared your opinions,</p> <p>14 did you rely upon these depo summaries or did you read</p> <p>15 the depositions yourself?</p> <p>16 A I read through each one of the depositions and</p> <p>17 the index depositions are for convenience to -- to pull</p> <p>18 out -- to make a summary of the important and relevant</p> <p>19 information that's contained inside the depositions.</p> <p>20 Q Okay. In addition to the deposition indexes,</p> <p>21 we have some Dodge bearing engineering catalog and it</p> <p>22 looks like basically some information regarding the</p> <p>23 particular bearings at issue in this case. Where did</p> <p>24 you obtain those documents?</p> <p>25 A From -- from the Internet. The catalog was</p>
<p style="text-align: right;">35</p> <p>1 lists all the materials that I received for my</p> <p>2 consideration as I investigated this case, the</p> <p>3 inspections, and who the -- the inspections dates and --</p> <p>4 and who did the inspections. And then the last page</p> <p>5 marked -- page 3, is -- lists my opinions.</p> <p>6 Q Okay.</p> <p>7 A Which -- which are verbatim from my report</p> <p>8 that I provided to Mr. Eichmann.</p> <p>9 Q Okay. And I'm going to stop you right there</p> <p>10 and summarize a little bit. So within Exhibit 2, the</p> <p>11 copy that we had made, which we've attached with a</p> <p>12 binder clip, is essentially the contents of one folder</p> <p>13 from your file?</p> <p>14 A Yes.</p> <p>15 Q And in the next few pages are -- what are</p> <p>16 titled deposition index and it looks like some of them</p> <p>17 are two-sided, some of them are single-sided. Can you</p> <p>18 tell me who prepared the deposition indexes that are</p> <p>19 contained within Exhibit 2?</p> <p>20 A Yes. His name was -- and I've been here a</p> <p>21 month, so I'm trying to remember his name.</p> <p>22 Q It looks like I see the initial PC. If that</p> <p>23 tells you at all.</p> <p>24 A Let's see. Where do you see that initials?</p> <p>25 Q Just a random --</p>	<p style="text-align: right;">37</p> <p>1 available on the Dodge bearing website.</p> <p>2 Q Okay.</p> <p>3 A The incomplete catalog isn't printed, just the</p> <p>4 sections that are pertinent to the bearing that's on the</p> <p>5 DuraTech grinder.</p> <p>6 Q Okay.</p> <p>7 A This catalog is over 720 pages so --</p> <p>8 Q Thank you for not printing it.</p> <p>9 A You're welcome. I -- I can have him do that</p> <p>10 if you'd like.</p> <p>11 Q I'll pass. And then the third thing that I'm</p> <p>12 going to hand to you is a document I've pulled from your</p> <p>13 file. Can you tell me what Exhibit 3 is?</p> <p>14 (EXHIBIT 3 MARKED FOR IDENTIFICATION)</p> <p>15 A Exhibit 3 is the invoice issued by Forensic</p> <p>16 Engineering -- Forensic Engineering Technologies to Mr.</p> <p>17 Eichmann's firm for the work that we did -- for the work</p> <p>18 that we've done today on this case.</p> <p>19 Q Okay.</p> <p>20 A Or through -- actually through -- through</p> <p>21 February -- February 28th.</p> <p>22 Q So on this invoice, there's a number of</p> <p>23 different initials who I assume to be the person, you</p> <p>24 know, billing against this file. And I can pretty much</p> <p>25 guess who JAT is. And then the PDC, I'm guessing that's</p>



**MILESTONE | REPORTING COMPANY**

TOMORROW'S TECHNOLOGY TODAY

407.423.9900

[www.MILESTONEREPORTING.com](http://www.MILESTONEREPORTING.com)

CORPORATE ORLANDO, FL 32801  
JACKSONVILLE, FL 32256  
TAMPA, FL 33602

Toll Free 855-MYDEPOS

<p style="text-align: right;">38</p> <p>1 Phil that you identified earlier?</p> <p>2 A Yes.</p> <p>3 Q Can you provide me with these other, like, for</p> <p>4 example, who is CO?</p> <p>5 A Chip O'Toole. Chip O'Toole is the person who</p> <p>6 accompanied me to California when we inspected the</p> <p>7 grinder.</p> <p>8 Q What does Chip do?</p> <p>9 A Chip's -- Chip's also -- he's a, like -- he's</p> <p>10 a mechanical engineer and he's an accident</p> <p>11 reconstructionist who -- who has a background in</p> <p>12 automotive repair. And he also goes out and -- and</p> <p>13 collects data from cars. He also help -- assists me in</p> <p>14 matters related to product liability.</p> <p>15 Q Okay. Did Chip's opinions contribute to your</p> <p>16 report, or your conclusions?</p> <p>17 A No, the conclusions in the report are my own.</p> <p>18 I -- I prepared a report and -- I prepared the report, I</p> <p>19 didn't have any co-authors.</p> <p>20 Q Who is CRK?</p> <p>21 A Charles King.</p> <p>22 Q What is Mr. King's role?</p> <p>23 A Mr. King is an also -- he's getting his</p> <p>24 engineering degree. He's also an accident</p> <p>25 reconstructionist, a technician. He's also our gadget</p>	<p style="text-align: right;">40</p> <p>1 years, for example.</p> <p>2 Q Do you expect it's going to be similar to the</p> <p>3 work you're doing at Ready?</p> <p>4 A It's -- it is very similar to the work I do at</p> <p>5 Ready.</p> <p>6 Q I guess did at Ready?</p> <p>7 A I did at Ready. Yes.</p> <p>8 MR. LEIBEL: All right. Well, I'm going to</p> <p>9 move into the report. Before we do that, let's take</p> <p>10 a quick -- maybe just a quick five-minute break.</p> <p>11 I'm going to really push to get out of here by</p> <p>12 lunchtime.</p> <p>13 THE WITNESS: Okay.</p> <p>14 COURT REPORTER: Okay.</p> <p>15 (OFF THE RECORD)</p> <p>16 COURT REPORTER: We are back on the record.</p> <p>17 BY MR. LEIBEL:</p> <p>18 Q I'm going to hand to you, Mr. Thomazin, what</p> <p>19 I've marked as Exhibit 4. Can you tell me what this</p> <p>20 document is?</p> <p>21 (EXHIBIT 4 MARKED FOR IDENTIFICATION)</p> <p>22 A Yes. This is my -- this is the preliminary</p> <p>23 engineering report that I was asked to provide by Mr.</p> <p>24 Eichmann.</p> <p>25 Q Okay.</p>
<p style="text-align: right;">39</p> <p>1 guy. When there's specialized tools that we need, he</p> <p>2 designs them and makes them. He's -- he's -- for -- for</p> <p>3 example, he's -- he's working on a light meter right now</p> <p>4 for measuring the light intensity from headlights on</p> <p>5 cars. He's -- he's also one of the speed engineers</p> <p>6 here.</p> <p>7 Q Okay. Who is SM? And looking towards the end</p> <p>8 of the narrative pertaining to the report.</p> <p>9 A Steven Mitchell.</p> <p>10 Q What is Mr. Mitchell's role?</p> <p>11 A He's one of the senior engineers here. He --</p> <p>12 he is an accident reconstructionist. He's -- he's a</p> <p>13 licensed professional engineer in the firm.</p> <p>14 Q So at Forensic Engineering Technologies,</p> <p>15 what's your understanding of what kind of work you're</p> <p>16 going to be doing here at the new -- your new position?</p> <p>17 A Consulting work, accident reconstruction,</p> <p>18 product liability type work. We also do structural</p> <p>19 analysis on the -- on the construction side we do claims</p> <p>20 investigations and we also -- we also do civil design</p> <p>21 work. We also look at mechanical engineering failures</p> <p>22 as they pertain to buildings. So we answer questions</p> <p>23 such as, why did, you know, why did an air conditioning</p> <p>24 unit fail -- fail prematurely? Or why did -- why did a</p> <p>25 certain building get moisture intrusion after only three</p>	<p style="text-align: right;">41</p> <p>1 A And I -- I prepared this document and</p> <p>2 delivered it -- or the date on this is February 12,</p> <p>3 2020. And that contains my observations and</p> <p>4 conclusions, okay?</p> <p>5 Q Now, this document was the preliminary report</p> <p>6 that predated your trip to Modesto to observe the</p> <p>7 grinder?</p> <p>8 A Yes.</p> <p>9 Q And I also have your other -- your final</p> <p>10 engineering report and we're going to talk about that,</p> <p>11 too. I just wanted to let you know I'm not trying to</p> <p>12 trick you. I understand there's more than one of these.</p> <p>13 And so what I'm going to do is, I had kind of</p> <p>14 highlighted some different questions and I'm going to</p> <p>15 just jump through this report, ask the questions I have,</p> <p>16 then we'll go through the second report, ask the</p> <p>17 questions, and then we'll be done, okay? So before we</p> <p>18 start this: Were you at Forensic Engineering</p> <p>19 Technologies when you were retained?</p> <p>20 A Yes. I was.</p> <p>21 Q Okay.</p> <p>22 A I just want to -- back up. I was in</p> <p>23 transition then. January 23rd, I was closing down Ready</p> <p>24 Engineering and moving down here. My official start</p> <p>25 date at Forensic Engineering Technologies is -- is the</p>



**MILESTONE | REPORTING COMPANY**

TOMORROW'S TECHNOLOGY TODAY

407.423.9900

www.MILESTONEREPORTING.com

CORPORATE ORLANDO, FL 32801  
JACKSONVILLE, FL 32256  
TAMPA, FL 33602

Toll Free 855-MYDEPOS

<p style="text-align: right;">42</p> <p>1 3rd.</p> <p>2 Q Do you have a peer review process here at</p> <p>3 Forensic Engineering Technologies?</p> <p>4 A There's -- there's a -- what do you mean by</p> <p>5 peer review?</p> <p>6 Q Well, before you are able to issue an</p> <p>7 engineering report under the Forensic Engineering</p> <p>8 Technologies letterhead, is there a requirement here</p> <p>9 that any other engineer review your conclusions or your</p> <p>10 opinions?</p> <p>11 A No, they -- they don't. The report is</p> <p>12 reviewed for grammatical errors and those kind of</p> <p>13 things. My assistant, Leslie Mitchell, reviewed --</p> <p>14 reviews it for grammatical errors, and other engineers</p> <p>15 may read it for grammatical errors as well.</p> <p>16 Q When you were at Ready Engineering, did you</p> <p>17 utilize any kind of peer review process?</p> <p>18 A I did not use any other engineers. However, I</p> <p>19 did hire professional copy editors to go through my</p> <p>20 report and make sure that it was readable, that there</p> <p>21 were no grammatical errors, and that's how I used the</p> <p>22 outside copy editor.</p> <p>23 Q Okay. If you could jump to the fourth page of</p> <p>24 Exhibit 4. Now, you have listed on -- I'm going to back</p> <p>25 up a little. On Exhibit 3 and Exhibit 4, basically a</p>	<p style="text-align: right;">44</p> <p>1 involvement of the attorney in the report processes,</p> <p>2 basically, involves a due date, and then there's no</p> <p>3 other input.</p> <p>4 Q Okay. Okay. On page -- okay. I'm going to</p> <p>5 reference on Exhibit 4. The document itself has, in the</p> <p>6 upper right-hand corner, you know, it has the case, the</p> <p>7 date, and a page. Do you see what I'm looking at?</p> <p>8 A Yes.</p> <p>9 Q Okay. I'm going to use that little subset</p> <p>10 page number as we, kind of, walk through this. It's</p> <p>11 going to be different than the page number of Exhibit 4,</p> <p>12 just because the cover page isn't numbered, but I just</p> <p>13 want to make sure that you and I are on the same page</p> <p>14 for this, okay?</p> <p>15 A Yes.</p> <p>16 Q Okay. So I'm looking at page 3, there's a</p> <p>17 section towards the bottom of this page that says</p> <p>18 "preliminary observations." Do you see what I'm looking</p> <p>19 at?</p> <p>20 A Yes.</p> <p>21 Q Under the second, I guess, the paragraph</p> <p>22 number 2, the last sentence says, "With proper</p> <p>23 operation, care, and maintenance, the endurance of the</p> <p>24 5064T can exceed 1,760 operational hours." Do you see</p> <p>25 what I'm looking at?</p>
<p style="text-align: right;">43</p> <p>1 list of the various documents and depositions and things</p> <p>2 like that. Did you review, you know, like, for example,</p> <p>3 these 14 depositions that are listed here, did you go</p> <p>4 through these and read through them page by page? Did</p> <p>5 you -- I mean, what's your process when you're working</p> <p>6 on a report like this and you're given a huge stack of</p> <p>7 info like we have in this case?</p> <p>8 A Well, a part of the process -- well, part of</p> <p>9 the process here is to index those depositions. I start</p> <p>10 by looking through some of the index depositions, then I</p> <p>11 also go through each one of the depositions and I touch</p> <p>12 each piece of paper. And so -- so the introduction,</p> <p>13 parts of the introduction, I don't necessarily read that</p> <p>14 carefully, but I -- I do read through each one of the</p> <p>15 documents.</p> <p>16 Q Okay.</p> <p>17 A And then once I'm done with that, I might add</p> <p>18 something to the index that I feel is important, that</p> <p>19 someone else who indexed it may not have thought that it</p> <p>20 was important.</p> <p>21 Q Okay. Now, when you prepare these reports,</p> <p>22 how involved is, you know, when you were obtained in a</p> <p>23 litigation case, how involved is the attorney in, kind</p> <p>24 of, this -- this report process with you?</p> <p>25 A They -- they are not. There is the</p>	<p style="text-align: right;">45</p> <p>1 A Yes.</p> <p>2 Q First of all, I want to clarify that, you</p> <p>3 know, at a few times during this report and as we get</p> <p>4 into the specifics of this, I just want to make clear</p> <p>5 that if I use the word, you know, the subject grinder,</p> <p>6 or the 5064T that we're both on the same page and we're</p> <p>7 talking about the DuraTech Horizontal Grinder, the</p> <p>8 5064T, the track model; is that fair?</p> <p>9 A Yes.</p> <p>10 Q Okay. And if at any time I get sloppy with my</p> <p>11 words and you need me to clarify exactly what I'm</p> <p>12 talking about, please let me know, okay?</p> <p>13 A Yes.</p> <p>14 Q And I'll try and do the same with you. So</p> <p>15 what is the basis for your conclusion on February 12th</p> <p>16 of 2020 that with proper operation, care, and</p> <p>17 maintenance, the endurance of the 5064T can exceed 1,760</p> <p>18 operational hours?</p> <p>19 A Well, approximately ten to 15 miles away from</p> <p>20 the subject grinder, there was an exemplar grinder, a</p> <p>21 5064 model, that was grinding almond trees beautifully.</p> <p>22 And it had, roughly, 1,000 more hours on it.</p> <p>23 Q And we're going to talk about that in a little</p> <p>24 bit. Now, on February 12th, 2020, that predated your</p> <p>25 inspection of what you later refer to as "the exemplar</p>



**MILESTONE | REPORTING COMPANY**

TOMORROW'S TECHNOLOGY TODAY

407.423.9900

[www.MILESTONEREPORTING.com](http://www.MILESTONEREPORTING.com)

CORPORATE ORLANDO, FL 32801  
JACKSONVILLE, FL 32256  
TAMPA, FL 33602

Toll Free 855-MYDEPOS



<p style="text-align: right;">46</p> <p>1 grinder," right?</p> <p>2 A Yes.</p> <p>3 Q What was the basis for this conclusion on</p> <p>4 February 12, 2020 that the endurance of the 5064T can</p> <p>5 exceed 1,760 operational hours?</p> <p>6 A The basis of that comes from reliability</p> <p>7 engineering. Generally -- generally, products like that</p> <p>8 aren't consumable items, and they don't have a</p> <p>9 definitive wear out life. And we know from that -- that</p> <p>10 science that the reliability engineers used to maintain</p> <p>11 and keep equipment operational that -- that they</p> <p>12 generally don't wear out when they're well-maintained.</p> <p>13 Q So you said, "General principles of</p> <p>14 Reliability Engineering." Are you saying it's your</p> <p>15 understanding, or it was on February 12, 2020 that the</p> <p>16 5064T was an engineered product?</p> <p>17 A Say again?</p> <p>18 Q Is it your understanding that the 5064T is an</p> <p>19 engineered product?</p> <p>20 A Yes. It's a -- it's a designed and</p> <p>21 manufactured product. There is work that goes into it.</p> <p>22 Q Well, and I certainly understand that it was</p> <p>23 designed and manufactured. Is it your understanding</p> <p>24 that this 5064T was engineered?</p> <p>25 A Yes. They -- yes. DuraTech has engineers on-</p>	<p style="text-align: right;">48</p> <p>1 4, and I'm looking at the upper right-hand corner of</p> <p>2 page 4, and I'm looking at your numbered paragraph</p> <p>3 number 3, do you see what I'm looking at?</p> <p>4 A Yes.</p> <p>5 Q Can you please read for me the first sentence</p> <p>6 of paragraph 3?</p> <p>7 A Yes. "Based upon work done by Weibull and</p> <p>8 means and methods used in reliability engineering,</p> <p>9 approximately 90 percent of machine failures do not</p> <p>10 reach a wear out failure condition."</p> <p>11 Q Okay. Can you explain for me what a Weibull</p> <p>12 analysis is?</p> <p>13 A It's a statistical analysis where data is --</p> <p>14 data is collected, analyzed. Then there's a probability</p> <p>15 distribution, and from that probability distribution you</p> <p>16 can -- you can glean information from that that's</p> <p>17 useful.</p> <p>18 Q And just for someone who is a, you know, that</p> <p>19 might not be an engineer, is it fair to say that a</p> <p>20 Weibull analysis is essentially a function or a formula</p> <p>21 that you plug certain data in and it'll allow you to</p> <p>22 project the life and reliability of a product?</p> <p>23 A No. It tells you -- it tells you what kind of</p> <p>24 a failure it is, whether it's a time failure, or random</p> <p>25 failure, or if there's a different kind of -- it's an</p>
<p style="text-align: right;">47</p> <p>1 staff.</p> <p>2 Q Did the engineers that DuraTech have on staff,</p> <p>3 to your knowledge, engineer this product? Did they do</p> <p>4 any of the types of testing or calculations that we</p> <p>5 discussed a little bit earlier in your deposition?</p> <p>6 A I'm not -- I don't know exactly what they did.</p> <p>7 They do have engineers on staff that are familiar with</p> <p>8 this product.</p> <p>9 Q You just don't know what those engineers did?</p> <p>10 A No. Based upon Mike Bartle's (phonetic)</p> <p>11 deposition, my understanding is that he designed the</p> <p>12 electrical layout.</p> <p>13 Q Okay. But other than Mr. Bartle's testimony</p> <p>14 about the electrical layout, you're not aware of any</p> <p>15 engineer testing, stress analysis, or other calculations</p> <p>16 pertaining to the 5064T, correct?</p> <p>17 A I don't know that definitively.</p> <p>18 Q Now, when you talk about reliability</p> <p>19 engineering, is it fair to say that your conclusion that</p> <p>20 the 5064T can exceed 1,760 operational hours with proper</p> <p>21 operation, care, and maintenance has an underlying</p> <p>22 assumption that this machine has been engineered?</p> <p>23 A Yes. That it's been -- that it's been</p> <p>24 engineered, and it's been designed and developed.</p> <p>25 Q If you could turn to the next page of Exhibit</p>	<p style="text-align: right;">49</p> <p>1 infant failure. So -- and each one of those -- each one</p> <p>2 of those different failures is characteristic of a kind</p> <p>3 of a product that you're -- you're looking at. So for</p> <p>4 example, an electronic component often has a infant</p> <p>5 failure because when they're tested coming off the</p> <p>6 manufacturing line, they don't work. And so an</p> <p>7 electronic failure typically fails in that part of the</p> <p>8 curve that's known as an infant failure.</p> <p>9 Q Okay. So I guess what I'm getting at is a</p> <p>10 Weibull analysis is, in your understanding, is that it's</p> <p>11 not a formula that allows an engineer to predict life</p> <p>12 cycle or reliability?</p> <p>13 A No. It's not used to predict life cycle.</p> <p>14 Q Okay. When you use the words "machine</p> <p>15 failures" in this first sentence of paragraph 3, what</p> <p>16 are you referring to?</p> <p>17 A A machine failure would be anything that would</p> <p>18 keep it from being operational. So for example, say</p> <p>19 that we have an electric motor connected to a mixer and</p> <p>20 a tank, and for some reason, the machine or the electric</p> <p>21 motor keeps going out. So we want to understand why</p> <p>22 that -- why that engine, or the electric motor is going</p> <p>23 out because they are expensive to replace. For example,</p> <p>24 there's also a down time and we want to know whether</p> <p>25 it's mounted incorrectly, whether there's vibrations in</p>



**MILESTONE | REPORTING COMPANY**

TOMORROW'S TECHNOLOGY TODAY

407.423.9900

[www.MILESTONEREPORTING.com](http://www.MILESTONEREPORTING.com)

CORPORATE ORLANDO, FL 32801  
JACKSONVILLE, FL 32256  
TAMPA, FL 33602

Toll Free 855-MYDEPOS



<p style="text-align: right;">50</p> <p>1 the system, and try to narrow down that one variable  2 that is important in keeping the machine and the process  3 operational.  4 Q And so in conducting a Weibull analysis, does  5 that require you to do a root cause analysis when you do  6 find failure?  7 A That can be part of it. There's -- there's  8 different methods used. There's different methods used  9 to find out what there is for a cause of failure.  10 There's -- different methods include the five-why,  11 fishbone diagram. Those are -- those are simple to  12 implement. The -- there's data collection. The general  13 process is try to figure out what went wrong and use the  14 tools at your disposal, use the easy ones first, and  15 then go to the more complicated or sophisticated ones  16 later.  17 Q So and part of -- you talked a little bit  18 earlier that one of your skill-sets is being a problem  19 solver and trying to figure out what went wrong; is that  20 fair?  21 A Yes.  22 Q And so that requires the collection of data,  23 right?  24 A Not always. There's -- there's a non-  25 destructive visual analysis. Information can be gleaned</p>	<p style="text-align: right;">52</p> <p>1 is used to help -- help figure out -- is -- is something  2 you have in your toolbox to be able to analyze data for  3 as -- for a purpose, say, to -- to keep the -- the  4 machine -- to keep machines running, figure out where it  5 fits -- fits in the failure curve, and understand what  6 it is -- what -- what the type of problem is that you're  7 dealing with, so that you can come up with strategies  8 and solutions to ensure that the machine operates  9 efficiently. There's a -- uptime and -- and you can  10 also plan your -- your downtime. And you also have an  11 understanding that if you do take the machine down and,  12 say, replace parts, that -- that helps understand --  13 that helps you understand how it affects production and  14 things like that.  15 Q Is it your understanding the Weibull analysis  16 is commonly used by manufacturers to determine warranty  17 costs?  18 A Not to my knowledge.  19 Q Is it your understanding that a Weibull  20 analysis requires input of life data into a probability  21 density function?  22 A Life data? Not necessarily. The life -- the  23 life data -- the data that you put into that, you have  24 to understand the problems you are going after to be  25 able to use -- to use that. It may not be applicable.</p>
<p style="text-align: right;">51</p> <p>1 by just the condition of equipment.  2 Q Well, and I understand what you're saying.  3 What I'm doing this kind of circling back to perform a  4 true Weibull analysis for a particular machine, you need  5 to, at some point, collect data, right?  6 A Depends upon what your purpose is. If -- if  7 you wanted to collect data -- to collect data to get  8 more efficiency out of a -- out of a process, it may --  9 it may require that you collect the data. But  10 collecting the data and then analyzing it can be a very  11 time consuming process. It may be a process that may  12 not be cost effective as well.  13 Q Uh-huh. Okay. Have you heard of the term  14 "life data" for a machine or a product?  15 A Life data or life expectancy? Yes.  16 Q What does that mean?  17 A Life data -- life data, in terms of -- of  18 material fatigue, would be the number of cycles that it  19 can -- the number of cycles under a load that it can  20 endure without -- without failure or fracture for a duty  21 cycle.  22 Q Would you agree with me that a Weibull  23 analysis is a methodology to perform an analysis of life  24 data?  25 A No. It's -- no, Weibull -- Weibull analysis</p>	<p style="text-align: right;">53</p> <p>1 Q And so where I'm going with this, at least in  2 part, is that when you're citing Weibull in reliability  3 engineering for the conclusion that approximately 90  4 percent of machine failures do not reach a wear-out  5 failure condition, you're talking about the broad  6 universe of machines, right?  7 A Yes. I'm talking -- yes.  8 Q You're not applying any specific data for the  9 5064T to lead you to a conclusion that 90 percent of  10 5064T machine failures or 90 percent of 5064Ts will not  11 reach a wear-out failure condition, correct?  12 A Correct. It's not specific to the 5064.  13 Q And so for paragraph 3 of page 4 of Exhibit 4,  14 when you say the probability that the wear-out failure  15 of the 5064T signifies equipment misuse involving human  16 error, and/or lack of maintenance is high, you are  17 extrapolating based upon a generality without any  18 specific data for the 5064T, right?  19 A Yes.  20 Q In paragraph 5 of page 4, you state that,  21 "DuraTech's design process relies on their experience  22 and collective knowledge. Design is an aggregate effort  23 where products are produced using feedback from sales  24 personnel and the cumulative experience gained from  25 building prior machine models." Do you see where I read</p>



**MILESTONE | REPORTING COMPANY**

TOMORROW'S TECHNOLOGY TODAY

407.423.9900

[www.MILESTONEREPORTING.com](http://www.MILESTONEREPORTING.com)

CORPORATE ORLANDO, FL 32801  
JACKSONVILLE, FL 32256  
TAMPA, FL 33602

Toll Free 855-MYDEPOS

<p style="text-align: right;">54</p> <p>1 that?</p> <p>2 A Yes.</p> <p>3 Q And we talked about this earlier, it's your</p> <p>4 understanding that DuraTech has engineers on staff, but</p> <p>5 you are not aware of, as you sit here today, any</p> <p>6 engineering that was performed on the 5064T other than</p> <p>7 Mr. Bartle's stating that he engineered the electronic</p> <p>8 components; is that true?</p> <p>9 A No. The -- my file contains the -- the CAD</p> <p>10 data, the drawings of the 5064 machine. And before</p> <p>11 those -- before those documents were produced, there's</p> <p>12 some effort that -- that went on beforehand -- before</p> <p>13 those documents were produced and finalized, and then</p> <p>14 they can manufacture the machine.</p> <p>15 Q Okay. Well, do you have to be an engineer to</p> <p>16 draw -- make a CAD drawing?</p> <p>17 A The technician can make the CAD -- CAD</p> <p>18 drawing. The reason -- the reason for -- the reason for</p> <p>19 this -- the reason for the drawing has to come from --</p> <p>20 well, it comes from some -- somewhere -- someone.</p> <p>21 Q And so you're saying it might have come from</p> <p>22 an engineer?</p> <p>23 A I don't know where it came from.</p> <p>24 Q Other than the fact there are CAD drawings and</p> <p>25 that Mr. Bartle testified that he engineered the</p>	<p style="text-align: right;">56</p> <p>1 know if that included the 5064 or not, are you aware of</p> <p>2 any engineered test results or data that DuraTech</p> <p>3 acquired from Fecon?</p> <p>4 A Currently, I -- I'm not -- I'm not aware of</p> <p>5 that.</p> <p>6 Q Now, when you talk about building prior</p> <p>7 machine models in paragraph number 5 on page 4 of</p> <p>8 Exhibit 4, you're talking about track-driven tub grind</p> <p>9 models; is that accurate?</p> <p>10 A Yes.</p> <p>11 Q Do you know how many 5064s, both wheeled and</p> <p>12 track-driven, DuraTech manufactured prior to the subject</p> <p>13 5064T?</p> <p>14 A I believe it's marked in their serial number.</p> <p>15 The number -- the unit number. And I think that was --</p> <p>16 I -- I believe that that was unit number 4, so they had</p> <p>17 -- they had others before then.</p> <p>18 Q Do you know if DuraTech had ever built a</p> <p>19 track-driven 5064 prior to the subject horizontal</p> <p>20 grinder?</p> <p>21 A I did -- I -- I believe that -- I do not know</p> <p>22 that. I think that's -- this is their -- according to</p> <p>23 the testimony, this was their testimony in the</p> <p>24 depositions. This was the first one.</p> <p>25 Q In paragraph 6 on page 4, you are talking</p>
<p style="text-align: right;">55</p> <p>1 electronics, are you aware of any other evidence in your</p> <p>2 file that the 5064T was engineered by DuraTech?</p> <p>3 A There's -- well, it's based on -- it's based</p> <p>4 on their experience of building other machines. They</p> <p>5 have other -- they have the two other tractor machines,</p> <p>6 tub grinders. They also -- they also acquired a company</p> <p>7 called Fecon that they absorbed into their company and -</p> <p>8 - and also took all the -- and also -- that also became</p> <p>9 their body of knowledge in their design of grinders.</p> <p>10 Q Do you know if any individuals at Fecon went</p> <p>11 to work at DuraTech?</p> <p>12 A I do not know that.</p> <p>13 Q So when we were talking about CAD drawings,</p> <p>14 did the CAD drawings for the 5064T come from Fecon?</p> <p>15 A I don't recall that it was any Fecon -- marked</p> <p>16 on that.</p> <p>17 Q So can you tell me when you talk about</p> <p>18 DuraTech absorbed institutional knowledge from Fecon --</p> <p>19 and I'm paraphrasing --</p> <p>20 A Sure.</p> <p>21 Q -- those weren't the exact words, what</p> <p>22 institutional knowledge are you talking about?</p> <p>23 A Their design data. Their -- their designs,</p> <p>24 the CAD data.</p> <p>25 Q Other than Fecon's CAD data, which we don't</p>	<p style="text-align: right;">57</p> <p>1 about the rotor bearings on the 5064T, and you say in</p> <p>2 the last sentence of that numbered paragraph, "The</p> <p>3 original bearings and subsequent replacement bearings</p> <p>4 match specifications and were installed in their proper</p> <p>5 locations." Do you see where I read that?</p> <p>6 A Yes.</p> <p>7 Q Can you identify for me which specifications</p> <p>8 that the original bearings and the subsequent</p> <p>9 replacement bearings matched?</p> <p>10 A Those were the -- those were the</p> <p>11 specifications that were based upon their other tub</p> <p>12 grinder. It uses a -- uses a similar bearing system in</p> <p>13 there for the rotor. And that -- and that some -- and</p> <p>14 the expansion and the fixed bearings were installed in</p> <p>15 their proper locations on the subject grinder.</p> <p>16 Q So you're saying the bearings on this 5064T</p> <p>17 match specifications for tub grinders that they have?</p> <p>18 A Those -- those -- that kind of bearing is used</p> <p>19 in -- in their other -- other grinding equipment.</p> <p>20 Q So on a tub grinder, where are rotor bearings</p> <p>21 located?</p> <p>22 A By the -- by the -- on each end -- on the</p> <p>23 shaft, on each end of the rotor, underneath the tub.</p> <p>24 Q Is it your understanding that the rotor</p> <p>25 bearings used on a tub grinder, that those bearings have</p>



**MILESTONE | REPORTING COMPANY**

TOMORROW'S TECHNOLOGY TODAY

407.423.9900

[www.MILESTONEREPORTING.com](http://www.MILESTONEREPORTING.com)

CORPORATE ORLANDO, FL 32801  
JACKSONVILLE, FL 32256  
TAMPA, FL 33602

Toll Free 855-MYDEPOS

<p style="text-align: right;">58</p> <p>1 been engineered by DuraTech?</p> <p>2 A Those are -- they have -- I don't know if the</p> <p>3 -- I don't know what engineering work has been done on</p> <p>4 that, but they have -- they're -- they're based upon</p> <p>5 their experience building tub grinders and their use --</p> <p>6 their history of use in the field by their customers.</p> <p>7 Q Do you have any information whether the rotor</p> <p>8 bearings used on the DuraTech tub grinders, whether</p> <p>9 DuraTech has any data on these bearings regarding, for</p> <p>10 example, the loads, the duty cycle, anything -- any of</p> <p>11 that data. Have you seen that regarding bearings?</p> <p>12 A I have -- I have not seen any -- anything like</p> <p>13 that.</p> <p>14 Q In paragraph 7 of page 4, we're talking, or</p> <p>15 you're talking, I guess, a little bit more specifically</p> <p>16 about the design of the bearings used on the 5064 rotor.</p> <p>17 Do you see what I'm looking at here?</p> <p>18 A Yes.</p> <p>19 Q Now, in the documents we already looked at,</p> <p>20 specifically at the end of Exhibit 2, we talked that you</p> <p>21 had included some selections from the Dodge bearing</p> <p>22 catalog?</p> <p>23 A Yes.</p> <p>24 Q So in paragraph 7 on page 4 of Exhibit 4,</p> <p>25 where you're talking about bearings, you're talking</p>	<p style="text-align: right;">60</p> <p>1 contaminants out of the bearing.</p> <p>2 Q Are there, in your understanding, different</p> <p>3 kinds of grease?</p> <p>4 A The -- there are different kinds of grease,</p> <p>5 and they can come with different additives as well.</p> <p>6 Q Okay. And is it fair to say that the reason</p> <p>7 there are different kinds of grease is because different</p> <p>8 machines require different properties from its</p> <p>9 lubricant?</p> <p>10 A Yeah. There's different applications. There's</p> <p>11 different environments in which the machines can run,</p> <p>12 which would require -- that have different demands.</p> <p>13 Q Are you aware of whether Dodge had specific</p> <p>14 recommended types of grease for this bearing?</p> <p>15 A They do have recommend -- they do list that, I</p> <p>16 believe, in their operator's manual.</p> <p>17 Q Are you aware of a -- that the DuraTech manual</p> <p>18 in the sticker on the machine recommended a certain type</p> <p>19 of grease for use?</p> <p>20 A Yes it -- recommended a grease, I believe, and</p> <p>21 then a number of -- or a volume of grease.</p> <p>22 Q Okay. And I will just represent to you that</p> <p>23 Mr. Rogers testified on Wednesday in this case. He's</p> <p>24 the engineer that was hired by the plaintiff and -- I</p> <p>25 will strike that because I can't remember what he talked</p>
<p style="text-align: right;">59</p> <p>1 about Dodge bearings here; is that right?</p> <p>2 A Yes. Yes.</p> <p>3 Q Does Dodge recommend that the specific</p> <p>4 bearings used in this 5064T on the rotors -- do they</p> <p>5 recommend that that product be used in dirty</p> <p>6 environments?</p> <p>7 A They -- they recommend a -- they rec -- it's -</p> <p>8 - it's recommended for a relatively clean or high</p> <p>9 temperature environment.</p> <p>10 Q Is it your understanding that the 5064T was</p> <p>11 used in a relatively clean environment?</p> <p>12 A The grind -- grinding is inherently the --</p> <p>13 grinding -- the grinding environment around the machine</p> <p>14 is -- is dirty, yes.</p> <p>15 Q Would it be fair to classify it as a hostile</p> <p>16 environment for a bearing?</p> <p>17 A Not necessarily.</p> <p>18 Q Okay. In this paragraph 7, you also talk</p> <p>19 about how a labyrinth design bearing and the</p> <p>20 requirement, or I guess a better word would be the</p> <p>21 effect of grease in maintaining an environment for that</p> <p>22 bearing where it can continue to operate. Is that a</p> <p>23 fair summary of what you're talking about here?</p> <p>24 A Yes, that's -- yes. The grease is used -- the</p> <p>25 -- the grease is used to lubricate and also help keep</p>	<p style="text-align: right;">61</p> <p>1 about. Do you have an opinion whether the grease that</p> <p>2 is identified on the DuraTech label, which I believe was</p> <p>3 Mobil 1022 is appropriate for the use that the 5064T was</p> <p>4 put towards?</p> <p>5 A I -- I believe that was recommended by the</p> <p>6 bearing manufacturer and they -- and they -- I believe</p> <p>7 that was appropriate for the -- the bearing.</p> <p>8 Q Okay. Have you actually, I mean, do you</p> <p>9 recall looking it up in the catalog to see if it was</p> <p>10 appropriate?</p> <p>11 A I remember seeing it. I didn't -- I didn't</p> <p>12 spend -- I spent more time looking at the bearing than I</p> <p>13 did at the grease.</p> <p>14 Q And let me just -- now might be a good chance</p> <p>15 to ask you: Do you have an opinion as to whether it is</p> <p>16 possible to over-grease a bearing?</p> <p>17 A No. it's -- no. Not with this kind of</p> <p>18 design.</p> <p>19 Q In paragraph 8 on page 4 of Exhibit 4, in the</p> <p>20 first sentence you say, "The originally installed</p> <p>21 bearings faultlessly operated for over 800 hours." Do</p> <p>22 you see where I read that?</p> <p>23 A Yes.</p> <p>24 Q What was the -- what is the basis for that</p> <p>25 conclusion?</p>



**MILESTONE | REPORTING COMPANY**

TOMORROW'S TECHNOLOGY TODAY

407.423.9900

[www.MILESTONEREPORTING.com](http://www.MILESTONEREPORTING.com)

CORPORATE ORLANDO, FL 32801  
JACKSONVILLE, FL 32256  
TAMPA, FL 33602

Toll Free 855-MYDEPOS

<p style="text-align: right;">62</p> <p>1 A The testimony that -- that -- based on the  2 testimony that was in the file, that the first bearing  3 replacement occurred around 800 engine hours.  4 Q Is it your understanding that 800 hours is  5 consistent with the bearing manufacturer's anticipated  6 duty life for that bearing?  7 A It's less than.  8 Q Do you know what the duty life is for that  9 bearing?  10 A They have various duty lives. There's -- the  11 catalog has formulas for calculating that.  12 Q Have you calculated what the duty life would  13 be for this bearing?  14 A No.  15 Q Would you agree with me it is substantially  16 less than the manufacturer's duty life?  17 A It -- it is less than that duty life.  18 Q Now, you talk a little bit in your report, and  19 I assume you're aware of the two reports that were  20 prepared by ABB who I understand to be a company  21 affiliated with Dodge that manufactured the bearings?  22 A Yes.  23 Q And those -- specifically, I'm referencing the  24 -- the first report, one of two, where they had some  25 photos of bearings and they were rusty --</p>	<p style="text-align: right;">64</p> <p>1 photographed from that first bearing failure, do you  2 think the conditions that led to that failure had been  3 present for some time prior to, you know, when the  4 machine was actually taken apart and Mr. Vanderhelm  5 pulled that bearing off?  6 A It was -- it was cumulative damage.  7 Q Okay.  8 A Yes. It was cumulative damage --  9 Q Okay.  10 A -- it occurred over a period of time.  11 Q Okay. Do you have an opinion as to how much  12 time?  13 A I -- well, the -- the mean time between  14 failure was approximately 280 hours between bearing  15 sets.  16 Q Subsequent bearing sets?  17 A Subsequent bearings sets.  18 Q Okay.  19 A Okay. So just based upon that, the -- the --  20 the failure may have initiated but I -- I have no way of  21 knowing or proving it, but it may have initiated  22 anywhere from 200 hours to 300 hours prior to the first  23 set of bearings failing.  24 Q Okay. And that number is based solely upon,  25 as you said, the failure interval for subsequent</p>
<p style="text-align: right;">63</p> <p>1 A Yes.  2 Q -- do you know what I'm talking about?  3 A Yes. That was the first set of bearings that  4 were analyzed at the 800 hours.  5 Q Okay. Would you agree with me that that first  6 set of bearings that's identified in the first ABB  7 report reflected a very substantial deterioration and  8 failure, based on the photographs of the cylinder  9 rolling units, things like that.  10 A That's -- that was a -- that was a -- that was  11 -- what was your word again?  12 Q Substantial.  13 A Substantial, yes. It was a substantial  14 failure, yes.  15 Q Okay. Is that something that, you know, for  16 lay people like me, you know, when something's wrong  17 with my car, there's, like, two ways I think about it.  18 The first way is, you know, your serpentine belt snaps  19 and that's an acute thing. It happens, it fails and  20 your engine stops. You can also, you know, drive your  21 car for a period of time without coolant, for example,  22 and that -- your engine's going to deteriorate and then  23 it's going to fail eventually, where it's a process.  24 A Yes.  25 Q With respect to the bearings that were</p>	<p style="text-align: right;">65</p> <p>1 bearings, right?  2 A Yes.  3 Q Now, the bearings that are identified in the  4 second ABB report, which I understand -- I don't know,  5 but it's my understanding that that's the second pair  6 that were replaced. Would you agree with me that their  7 condition was not as bad as the first set?  8 A No, their condition was -- their condition was  9 -- it failed. They were unusable so their condition --  10 their condition didn't allow the machine to function.  11 And I also recall from Cortes' (phonetic) deposition, he  12 said that the vibrations of the machine started to  13 appear in the first month, if I recall correctly.  14 Q When the first set of bearings were replaced,  15 did the technician that do the replacement determine  16 that the vibration had been resolved?  17 A Not to my knowledge. I -- based on the  18 deposition, I believe that John VanderHelm (phonetic)  19 said that it -- that it helped.  20 Q And who is Mr. VanderHelm employed by?  21 A Red Barn Equipment.  22 Q And is it your understanding that that was  23 DuraTech's dealer in Modesto, California?  24 A Yes.  25 Q On looking to page 5 of Exhibit 4, in numbered</p>



**MILESTONE | REPORTING COMPANY**

TOMORROW'S TECHNOLOGY TODAY

407.423.9900

[www.MILESTONEREPORTING.com](http://www.MILESTONEREPORTING.com)

CORPORATE ORLANDO, FL 32801  
JACKSONVILLE, FL 32256  
TAMPA, FL 33602

Toll Free 855-MYDEPOS



<p style="text-align: right;">66</p> <p>1 paragraph 12, you say that, "No party has knowledge that 2 the 5064T grinder was idle long enough to disassemble 3 the hammermill. What does that mean? What are you 4 saying there? 5 A What I mean by that is that -- that they've 6 taken the hammer tips off the hammer -- or off the mill, 7 weighed each one. They've -- they've taken -- if they 8 needed to take the component that holds the hammer to 9 the -- the rotation part of the mill, made sure that 10 there was -- that -- that -- that those were balanced 11 properly and weighed properly, and that they were 12 counter balanced on each -- each side of the rotor. Then 13 -- then they -- they would have balanced the rotor 14 without any of those components and then reassembled 15 that. And there's -- that would have taken a long time 16 to do and -- and that's what I mean by that. I didn't 17 think it was down long enough to really troubleshoot and 18 figure out the root cause. 19 Q So are you saying that NuTech refused to keep 20 the grinder down long enough to do that? 21 A I don't know. 22 Q Do you know if that was ever -- if DuraTech or 23 Red Barn ever said to NuTech, you need to put this out 24 of service for a lengthy period of time so we can 25 disassemble the hammermill?</p>	<p style="text-align: right;">68</p> <p>1 A The -- they need to know the -- the shaft, the 2 rotational speed, and they don't need -- they will -- 3 they will provide a -- I'm trying to remember how they 4 used -- their term. They will provide a allowable 5 stress and the -- and the catalog referred to it as an 6 allowable stress. 7 Q Is that similar to a load? 8 A Oh yes. Or an allowable load, yeah. 9 Q In order to properly spec the rotor bearings, 10 does DuraTech need to know what kind of life expectancy 11 or L10 for the bearing? 12 A No, not necessarily. 13 Q Does DuraTech need to know the environment? 14 A They -- they do know the environment. 15 Q Okay. And again, just to clarify, you're not 16 aware -- other than the CAD drawings, of any of that 17 data being anywhere in the possession of DuraTech? 18 A I -- I don't know what -- I don't know what 19 kind of engineering data that they have. 20 Q Your second conclusion is that contaminated 21 grease within the bearing indicates that the bearing 22 maintenance was insufficient in terms of grease volume 23 and/or frequency. Do you see where I read that on page 24 6 of Exhibit 4? 25 A Yes. Page 6, paragraph marked 2.</p>
<p style="text-align: right;">67</p> <p>1 A No, that I don't -- say that again. 2 Q Yeah. Did, I mean, did either DuraTech or 3 NuTech ever -- okay. Now I'm getting mixed up with 4 these. Did DuraTech or anyone at Red Barn ever say to 5 NuTech, we need to disassemble the hammermill? 6 A No. There's no record of that in the -- in 7 the testimony for the depositions that I -- that I could 8 find. 9 Q Okay. Turning to page 6. And I'm looking at 10 your first conclusion that DuraTech correctly specified 11 the rotor bearings. And my question for you is: What 12 information is necessary to properly specify rotor 13 bearings? 14 A Experience of building -- experience -- 15 experience of building other grinders. Having either 16 5064 grinders out in the field operating such as the 17 exemplar grinder, and then also a -- a history of -- of 18 use of the machines that they manufacturing -- by their 19 customers. 20 Q Well, would you need to know -- in order for 21 DuraTech to spec the bearings through Dodge, would Dodge 22 need to know the size constraints? 23 A That's one of the parameters. 24 Q For DuraTech to properly specify bearings, 25 does DuraTech need to know the duty cycle loads?</p>	<p style="text-align: right;">69</p> <p>1 Q Uh-huh. Is it your opinion that the original 2 lubrication schedule, including the lubrication 3 intervals and the lubrication quantity which is on the 4 sticker of the rotor bearing, is sufficient for the 5 5064T in the environment in which it was operated? 6 A It depends upon -- it -- that depends on the - 7 - I believe it's -- I believe that those general 8 recommendations are sufficient. However, those are 9 guidelines and -- and each customer that they have 10 operates the machine in a different manner. So there 11 may be different -- different lubrication requirements 12 that -- depending upon the environment and also the 13 manner and frequency with which the machine is used. 14 Q So it's your opinion that the sticker was 15 sufficient for NuTech? 16 A It was -- it was a general guideline and I 17 think it was, I believe -- I think it was sufficient. 18 Q Have you seen any evidence that NuTech did not 19 follow the lubrication schedule that was on the sticker 20 of the rotor bearing? 21 A I -- I do not know, like, I don't know what 22 their -- I don't know what their maintenance schedule 23 was. 24 MR. LEIBEL: Right. We're going to take our 25 next break and we're going to do it quick and we're</p>



**MILESTONE | REPORTING COMPANY**

TOMORROW'S TECHNOLOGY TODAY

407.423.9900

www.MILESTONEREPORTING.com

CORPORATE ORLANDO, FL 32801  
JACKSONVILLE, FL 32256  
TAMPA, FL 33602

Toll Free 855-MYDEPOS



<p style="text-align: right;">70</p> <p>1 going to try and get out of here by noon, okay?</p> <p>2 COURT REPORTER: Uh-huh.</p> <p>3 MR. LEIBEL: Just a couple of minutes.</p> <p>4 (OFF THE RECORD)</p> <p>5 BY MR. LEIBEL:</p> <p>6 Q All right. I'm going to hand to you what I've</p> <p>7 marked as Exhibit 5.</p> <p>8 (EXHIBIT 5 MARKED FOR IDENTIFICATION)</p> <p>9 MR. EICHMANN: Just put it in the pile.</p> <p>10 Q Can you tell me what Exhibit 5 is?</p> <p>11 A Yes. It's the engineering report that I --</p> <p>12 prepared after my inspection in California of the</p> <p>13 subject grinder and the exemplar grinder and -- and</p> <p>14 dated February 28, 2020.</p> <p>15 Q Okay. And the same thing we talked about with</p> <p>16 respect to Exhibit 4. I'm going to refer to page</p> <p>17 numbers within Exhibit 5 according to the page number on</p> <p>18 the top right-hand corner; is that okay?</p> <p>19 A Yes.</p> <p>20 Q Turning to page 3, there's a section marked</p> <p>21 "material review" and in the first paragraph of that</p> <p>22 section, the last sentence, you talk about NuTech</p> <p>23 modified the original configuration of the 5064T by</p> <p>24 putting a spreader on instead of the conveyor. Is it</p> <p>25 your opinion that that modification has any relevance to</p>	<p style="text-align: right;">72</p> <p>1 the changes you made; is that okay?</p> <p>2 A Yes.</p> <p>3 Q Now, one of the issues you talk a little bit</p> <p>4 about, and I guess you talk about it in both reports, is</p> <p>5 the onset of the rotor imbalance or where the mill went</p> <p>6 out of balance. Did you look through the deposition of</p> <p>7 Bob Strahm at all?</p> <p>8 A Yes.</p> <p>9 Q And you're aware that Mr. Strahm in April --</p> <p>10 towards the end of April of 2018, that he went to</p> <p>11 California and observed the 5064T in operation?</p> <p>12 A Yes.</p> <p>13 Q Did Mr. Strahm observe any vibrations while</p> <p>14 the machine was grinding during that visit? Do you</p> <p>15 recall from his testimony?</p> <p>16 A It's -- it -- there is a statement in his --</p> <p>17 there's a statement in his testimony that he did -- he</p> <p>18 did notice that the machine had vibration during that</p> <p>19 visit.</p> <p>20 Q Okay. Did he notice that it was vibrating or</p> <p>21 did he notice some hairline cracks that led him to</p> <p>22 assume it was vibrating; do you recall?</p> <p>23 A I'd have to look in my -- I'd have to look in</p> <p>24 my index.</p> <p>25 Q Okay. And I think your index -- I've just</p>
<p style="text-align: right;">71</p> <p>1 the issues in this case?</p> <p>2 A No. The -- the first -- their first attempt</p> <p>3 at modify -- or their first attempt of hanging on the --</p> <p>4 or attaching the spreaders to the grinder resulted in</p> <p>5 the discharge chute falling. And then they removed the</p> <p>6 discharge chute and just placed it directly on the</p> <p>7 discharge conveyor from the machine.</p> <p>8 Q And, is it your understanding that NuTech is</p> <p>9 making any type of a claim about the failure of that</p> <p>10 discharge chute?</p> <p>11 A No, I do not know.</p> <p>12 Q Now, going down the, you know, towards the</p> <p>13 end, you've got little bullets -- sentences. And my</p> <p>14 review of this is that a lot of the information in this</p> <p>15 Exhibit 5 is the same, you know, the same exact words</p> <p>16 you used in parts of Exhibit 4. Is that a fair --</p> <p>17 A Yes.</p> <p>18 Q -- statement? And how did you go about</p> <p>19 preparing Exhibit 5? Did you just open the file up on</p> <p>20 your computer and then add information as needed?</p> <p>21 A Yes. I -- I created a copy, changed the cover</p> <p>22 page, and then -- and then added information to it.</p> <p>23 Q Okay. And so I'm not going to ask you about</p> <p>24 anything Exhibit 5 that we already discussed in Exhibit</p> <p>25 4. All I'm going to do is just kind of jump ahead to</p>	<p style="text-align: right;">73</p> <p>1 handed you back Exhibit 2, I think.</p> <p>2 A Yes. On page 9622 he -- he was asked, "When</p> <p>3 you inspected the 5064T, did you see anything, any</p> <p>4 problems?" He responded, "Nothing alarming. I did not</p> <p>5 find a cra-" -- "I did find a crack on one and I</p> <p>6 searched for this. I searched pretty high and low and I</p> <p>7 found a crack, which is" -- "I would call wear and tear</p> <p>8 on the machine, because it's -- it's a grinder,</p> <p>9 otherwise sheet metal being bellowed out. It's typical</p> <p>10 of wood being forced into the -- nothing, the floor --</p> <p>11 the floor has grips on it." So to answer your question,</p> <p>12 he did know that there was cracks in the machine.</p> <p>13 Q Did you find any indication that he testified</p> <p>14 that he observed the machine vibrating excessively at</p> <p>15 that time in April of 2018?</p> <p>16 A He did not -- in his testimony, he did not</p> <p>17 mention about -- did not mention anything about</p> <p>18 vibration -- vibrating excessively. However, on page</p> <p>19 95, line 12, the question was asked, "When you went to</p> <p>20 NuTech on April 25, 2018, what did you observe with</p> <p>21 respect to the machine?" He responded, "It was running.</p> <p>22 In fact, we went out there with a NuTech crew and along</p> <p>23 with other detailers and we requested them to shut it</p> <p>24 down so we could take a closer look at it. We observed</p> <p>25 it for one of the -- one of the things that can cause</p>



407.423.9900

MILESTONE | REPORTING COMPANY

TOMORROW'S TECHNOLOGY TODAY

www.MILESTONEREPORTING.com

CORPORATE ORLANDO, FL 32801  
 JACKSONVILLE, FL 32256  
 TAMPA, FL 33602

Toll Free 855-MYDEPOS

<p style="text-align: right;">74</p> <p>1 bearings to go out is vibration. We didn't have any 2 equipment to test it, but we just visibly checked it. So 3 we asked them to shut it down so we could take a closer 4 look and we did." 5 Q If you could turn -- going back to Exhibit 5. 6 And I will have you just clip that exhibit back 7 together. And if you could flip ahead to page 10. On 8 the bottom photograph on page 10, it looks like you've 9 taken a picture of some sticks that look like it's 10 located in the -- a cavity holding a cylinder. Can you 11 explain what you're depicting there? 12 A Yes. This is a -- this is a cavity, it's on 13 the right side of the machine, I believe. Yes. It's on 14 the right side of the machine and it -- on -- in the 15 inset in the photograph above it shows an overall view 16 of where the photograph was taken relative to the 17 machine before we took a close-up of the cavity. So 18 then the picture below that on page 10 shows -- shows 19 that picture within the cavity itself. And that cavity 20 holds the cylinder that raises and lowers the table, I 21 believe is what it's referred to. 22 Q Okay. 23 A It -- the front table assembly is what it's 24 connected to. And -- and the significance of this 25 picture is that the -- the trees and debris that's in</p>	<p style="text-align: right;">76</p> <p>1 A Yes. 2 Q And so is it fair to say that that material 3 that you're seeing in that cavity, it indicates that 4 material was pushed into the back end of the cavity. 5 Well, let me ask that in a different way. That was a 6 poor question. Can you provide the basis to me for your 7 assumption that this material indicates it was pushed 8 into the mill as opposed to being pushed into the cavity 9 near the table? 10 A The material that wound up in this cavity was 11 placed there as the operator manipulated the trees as he 12 was loading the chute. And the -- the basis of that is 13 -- is the -- the video evidence taken by the drone 14 showing that the operator had -- had manipulated the 15 trees as he placed them into the chute to assist the -- 16 the feeding. 17 Q Well, I guess what I'm getting at is it's 18 certainly possible to get material in here if the 19 operator was lifting the tree over the table and 20 dropping it on the floor; isn't that true? 21 A I'm -- I'm not sure how the mechanics of that 22 would work. If he's placing it -- if he's -- if he's 23 taking his machinery and dropping it over to the side -- 24 the side into the -- into the table, I'm not sure how 25 that mechanism would work, getting the trees -- tree</p>
<p style="text-align: right;">75</p> <p>1 that cavity is difficult to -- the trees and -- trees 2 and sticks that are in there cannot get in there unless 3 they were pushed or placed or shoved in there. 4 Q Okay. And so the question -- the follow-up 5 question I have is if you look at the bottom picture on 6 page 10, on the right-hand side there, you have kind of 7 a narrative section and you say in the last sentence, 8 "Debris here indicates that material was pushed into the 9 hammermill as the grinder was loaded." Do you see where 10 I'm reading? 11 A Yes. 12 Q Now, this cavity that you're point -- you're 13 depicting in that photograph, that's on the very end of 14 the grinder, right? 15 A It's on the front end -- front end of the 16 grinder. The front of the chute. 17 Q Okay. The front of the chute. And how far -- 18 what's the distance between that cavity and the mill 19 itself? Did you take any measurements at all? 20 A I did not take measurements. I had the -- I 21 have the CAD -- CAD drawings, and there's also the 22 specifications which have dimensions on those. 23 Q Okay. Well, and I guess the significance is 24 we're talking about a number of feet between the 25 hammermill and this cavity; is that true?</p>	<p style="text-align: right;">77</p> <p>1 branches placed into that cavity. 2 Q Well, how would the mechanism work if he's 3 getting it in the cavity? I mean, is he pulling the 4 machine along the length of the wall and then pushing it 5 into the mill? 6 A Yeah. Yes. He would have to -- he would have 7 -- when he's -- as he's manipulating the trees and 8 placing them into the feed chute, he would have -- he -- 9 at some point one of those movements would be -- would 10 be pushing the material towards the hammermill. 11 Q Can you please turn to page 14 of Exhibit 5. 12 In the bottom picture on this page, you show where a 13 counterbalance weight from the rotor, you know, your 14 conclusion is that a weight was removed. Do you see 15 what I'm looking at? 16 A Yes. 17 Q Do you know or have any, you know, idea who 18 removed that counterbalance weight? 19 A No. I don't -- I do not have any idea. The - 20 - the witness-mark just indicates that it had been 21 removed, but I don't know by whom or when. 22 Q Okay. And so you're not concluding that 23 NuTech was removing counterbalance weights? 24 A No. I'm not. No. 25 Q Turning to page 15. The last bullet on this</p>



**MILESTONE | REPORTING COMPANY**

TOMORROW'S TECHNOLOGY TODAY

407.423.9900

[www.MILESTONEREPORTING.com](http://www.MILESTONEREPORTING.com)

CORPORATE ORLANDO, FL 32801  
JACKSONVILLE, FL 32256  
TAMPA, FL 33602

Toll Free 855-MYDEPOS

<p style="text-align: right;">78</p> <p>1 page, you said that, "The speed of the feed floor RPM 2 was set at a 100 percent and the speed of the feed 3 roller RPM was set at 70 percent." Do you see where I'm 4 reading? 5 A Yes. 6 Q Does that have any significance to your 7 opinions in this case? 8 A The operations manual provided by DuraTech for 9 grinding logs recommended a feed floor and a feed roller 10 setting of 45 percent. 11 Q Do you draw any conclusions from the findings 12 that you saw, you know, this finding you have identified 13 on page 15 of Exhibit 5? 14 A The -- the inference I can make is that the -- 15 the feed floor RPM and the feed roller RPM was set 16 higher than the guideline to increase throughput. 17 Q And you certainly understand that increasing 18 throughput is the goal of almost every machine, right? 19 A Not necessarily. 20 Q Okay. Well, throughput is money for most 21 people that use machines, right? 22 A Throughput -- throughput does affect the -- 23 the amount of money that they can make, yes. 24 Q Did you see anywhere in DuraTech's manual that 25 they say do not use -- do not turn the speed of the feed</p>	<p style="text-align: right;">80</p> <p>1 debris and dirt from the machine. 2 Q So he had used it for six hours. Did he -- 3 was it your understanding that that's a normal day for 4 that grinder? 5 A It's my understanding that was a normal day 6 for him. 7 Q Okay. And what I'm getting at is did you get 8 any information as to, you know, like example, how many 9 hours per week that grinder was used? 10 A No, I didn't -- I didn't get specifically. 11 Just based upon his -- his six-hour, two-hour, six-hour 12 maintenance. He -- he worked an eight-hour shift. So 13 he's grinding for six and then care for the machine 14 approximately an hour, an hour-and-a-half, two hours. 15 Q Okay. When he's maintaining the machine, is 16 the engine running; do you know? 17 A He -- he runs the engine as he's greasing the 18 rotor-bearings. 19 Q Okay. Did you observe him grease the rotor- 20 bearings? 21 A No. He was -- he was finished with that 22 portion. 23 Q Now, I thought you said earlier that you 24 observed him grinding almond trees; is that right? 25 A Yes.</p>
<p style="text-align: right;">79</p> <p>1 floor up to 100 percent? 2 A No. Those -- those were recommendations for 3 settings. 4 Q Now, the second half of this page 15 in 5 Exhibit 5, is where you're evaluating what you are 6 calling an exemplar grinder; is that correct? 7 A Yes. 8 Q First of all, tell me when this inspection of 9 the exemplar grinder occurred? 10 A The same day that we saw the subject grinder. 11 Q While you were there inspecting, what you call 12 the exemplar, did you have any discussions with anyone 13 there? 14 A The operator. 15 Q Okay. Do you know the name of the operator? 16 A Miguel. I do not know his last name. 17 Q Did Miguel voice any complaints about the 18 5064? 19 A No. 20 Q Did Miguel or anyone tell you how often that 21 5064 was used? 22 A The day that we arrived he had been grinding 23 for six hours and then when we arrived on the site, he 24 was in the process of maintaining the machine. He was - 25 - he was using compressed air to blow -- to blow off the</p>	<p style="text-align: right;">81</p> <p>1 Q Did Miguel tell you that the primary use of 2 this 5064 was to grind almond trees? 3 A Yes. That's what they were doing that day. 4 Q I mean, but did he tell you that's how they 5 normally use it? 6 A Yes. 7 Q So he was already maintaining, was at the end 8 of his shift, he was cleaning and greasing and doing all 9 that stuff on the machine? 10 A Yes. 11 Q Did he decide to grind some trees to show you 12 how to do it? 13 A Yes. He volunteered. 14 Q Okay. How many trees did he grind while you 15 watched? 16 A He -- he had a front-end loader with a grapple 17 and it grabbed -- he loaded up one load, placed it into 18 the -- into the chute and ground those trees, and then 19 followed by another one. 20 Q Okay. So is one load, is that two trees, is 21 that a number of trees? 22 A That was -- that was however many trees he 23 could grasp with his front-end loader and grapple. So 24 it was two, three. I don't -- I don't recall. 25 Q How long in total did you observe the</p>



**MILESTONE | REPORTING COMPANY**

TOMORROW'S TECHNOLOGY TODAY

407.423.9900

[www.MILESTONEREPORTING.com](http://www.MILESTONEREPORTING.com)

CORPORATE ORLANDO, FL 32801  
JACKSONVILLE, FL 32256  
TAMPA, FL 33602

Toll Free 855-MYDEPOS

<p style="text-align: right;">82</p> <p>1 operation of this exemplar 5064?</p> <p>2 A We were there approximately an hour-and-a-</p> <p>3 half, two hours.</p> <p>4 Q Now, in this, your first bullet there, you</p> <p>5 say, "Almond trees were prepped before the grinding</p> <p>6 operation. Root balls were cut from the trees so dirt</p> <p>7 could dry and fall from the root ball before being</p> <p>8 ground." Is that -- so explain to me how you knew that.</p> <p>9 Did Miguel tell you? Did you see it?</p> <p>10 A We physically saw it. There was -- there --</p> <p>11 behind the grinder was the prepped trees and the trees</p> <p>12 had their root balls cut off. The root balls were set</p> <p>13 off to one side and allowed to -- to -- to dry first.</p> <p>14 The trees were fed through the grinder first and then</p> <p>15 the root balls were subsequently ground.</p> <p>16 Q Okay.</p> <p>17 A So after all the almond trees have been</p> <p>18 ground.</p> <p>19 Q So, like, they were chain-sawed off, is that</p> <p>20 a --</p> <p>21 A Yes.</p> <p>22 Q Okay. Now, you talked a little bit about, in</p> <p>23 both your evaluation of the exemplar and the 5064T, the</p> <p>24 subject grinder, about the side walls on the 5064T were</p> <p>25 bowed. And on the exemplar 5064, they were straight?</p>	<p style="text-align: right;">84</p> <p>1 issues. And I can't recall right now, but I don't -- I</p> <p>2 don't -- I don't recall whether they replaced rotor-</p> <p>3 bearings or not.</p> <p>4 Q Okay. Do you know when the exemplar 5064 was</p> <p>5 manufactured?</p> <p>6 A That's contained in the serial number, I</p> <p>7 believe. I believe it was manufactured three years</p> <p>8 prior to the sale. So 2014, if I'm recalling correctly,</p> <p>9 the subject grinder.</p> <p>10 Q Do you know how many hours the 5060 -- the</p> <p>11 exemplar 5064 had on it when it was sold to the current</p> <p>12 -- I think you identified Castle Farms in Winter Park?</p> <p>13 A I did, but I did not know that.</p> <p>14 Q Would that have any importance to your</p> <p>15 opinions?</p> <p>16 A No. Not necessarily.</p> <p>17 Q Could you please turn to page 19 of Exhibit 5?</p> <p>18 In this first opinion we mentioned, you know, we've</p> <p>19 talked a little bit. This appears to be the same</p> <p>20 general conclusion that was contained in your first</p> <p>21 report. Except this one specifically has a basis that</p> <p>22 you've identified there. Do you see what I'm looking</p> <p>23 at?</p> <p>24 A Yes.</p> <p>25 Q Other than the basis you've identified at the</p>
<p style="text-align: right;">83</p> <p>1 A Yes.</p> <p>2 Q What conclusions do you draw from that?</p> <p>3 A Collisions with some other machinery. There</p> <p>4 -- there was -- had to be some other machine that was</p> <p>5 either trying to manipulate the trees or compress the</p> <p>6 trees while they were in the feed chute. And as they</p> <p>7 were doing that operation, the -- the two machines</p> <p>8 collided and the loser was the side walls of the feed</p> <p>9 chute on the subject grinder.</p> <p>10 Q What do you know about the history of this</p> <p>11 exemplar grinder?</p> <p>12 A It was sold by another dealer in California. I</p> <p>13 don't recall who the name was. However, it's in that --</p> <p>14 it's in the testimony, and they have -- they have</p> <p>15 approximately 2,700 hours on the machine. It -- they</p> <p>16 have had minor problems with it. They've cared for it</p> <p>17 and they have -- they're happy with the machine, so --</p> <p>18 Q Okay.</p> <p>19 A So as far as -- as far as the -- the sales</p> <p>20 history, the repair history, I don't -- I have -- I</p> <p>21 don't have much information regarding that.</p> <p>22 Q Did you ask them whether they've had to</p> <p>23 replace any rotor bearings?</p> <p>24 A They have not had to replace -- if -- we did</p> <p>25 ask about the -- we did ask about the -- about major</p>	<p style="text-align: right;">85</p> <p>1 bottom of page 19 of Exhibit 5, do you have any other</p> <p>2 basis for this conclusion?</p> <p>3 A No. Those are my current -- that's the</p> <p>4 current basis that I have.</p> <p>5 Q So my understanding of what the word</p> <p>6 "exemplar" means -- and let me ask my -- doesn't matter.</p> <p>7 What's your understanding of what the word "exemplar"</p> <p>8 means?</p> <p>9 A Exemplar means -- exemplar means that a</p> <p>10 machine is identical to -- to another machine, either in</p> <p>11 form or function. And designed -- and designed roughly</p> <p>12 for the same purpose -- for the same purpose.</p> <p>13 Q Are you aware of any differences between the</p> <p>14 exemplar and the subject grinder?</p> <p>15 A One is a tracked vehicle -- tracked machine,</p> <p>16 and one has axles -- three axles under it -- under it.</p> <p>17 Q Now, when you watched the video, are you aware</p> <p>18 that NuTech was grinding almond trees while the 5064T</p> <p>19 was moving?</p> <p>20 A Yes.</p> <p>21 Q Was the exemplar grinder able to grind on the</p> <p>22 go?</p> <p>23 A No. It was stationary.</p> <p>24 Q Does the fact that the exemplar grinder was</p> <p>25 stationary and on tires as opposed to mobile and on</p>



407.423.9900

MILESTONE | REPORTING COMPANY

TOMORROW'S TECHNOLOGY TODAY

www.MILESTONEREPORTING.com

CORPORATE ORLANDO, FL 32801  
 JACKSONVILLE, FL 32256  
 TAMPA, FL 33602

Toll Free 855-MYDEPOS

<p style="text-align: right;">86</p> <p>1 steel tracks, have any effect on properly specifying the 2 rotor bearings in your opinion? 3 A No. No. 4 Q Is it your opinion that a manufacturer that 5 has one working product establishes the specifications 6 for other products from your perspective as an engineer? 7 A Did they draw specifications from the machines 8 they prior built to -- yes, they did -- yes. They do 9 that. 10 Q That one's enough? 11 A That one specification is enough? 12 Q That one working product is enough? 13 A No. They have several. They have -- they 14 have three other machines that are -- that are in use. 15 Q Have you inspected any of the other -- well, 16 so there's four total, right? 17 A There's four total. 18 Q One is the 5064T? 19 A Yes. 20 Q And then there's three 5064s on wheels, right? 21 A Yes. 22 Q And you've inspected one of those? 23 A Yes. 24 Q So there's two other out there? 25 A Yes.</p>	<p style="text-align: right;">88</p> <p>1 Q Okay. Now, you say, "Machinery dynamics" and 2 then you have a footnote to a -- you know, what looks 3 like a book, a handbook. Do you see what I'm looking 4 at? 5 A Yes. 6 Q Is there any particular chapter or page that 7 you relied upon for that conclusion? 8 A No. No. That's just a general handbook on 9 machinery dynamics. 10 Q Okay. When you inspected the 5064T, did you 11 observe any physical evidence of damage to the rotor 12 that you believe was caused by pushing trees into the 13 rotor? 14 A Damage to the rotor itself? I -- what I 15 observed was various wear on different hammer tips. And 16 when I operated the machine -- the machine at low -- low 17 RPM or high RPM, it vibrated. It vibrated badly even at 18 low RPM. 19 Q Well, regarding the hammer tips, they wear 20 when the machine is being operated perfectly, right? 21 A Yes, they do wear. 22 Q Okay. And where I'm going with that, I asked 23 you whether you observed any physical evidence of damage 24 to the rotor that you believe was caused by trees being 25 pushed into the rotor?</p>
<p style="text-align: right;">87</p> <p>1 Q Have you inspected the two others that we 2 haven't talked about? 3 A No, I have not. 4 Q And so whether those machines are having any 5 problems is unknown to you, right? 6 A That's correct. I do not know the condition 7 of those machines. 8 Q Okay. So as we sit here today, we're only 9 aware of two machines, right? 10 A Yes. 11 Q One that works and one that doesn't? 12 A Yes. 13 Q Okay. If you could please turn to paragraph 2 14 on page 20. And the second sentence of paragraph 2 you 15 make the conclusion that, "Bearings don't cause 16 vibrations. However, vibrations damage bearings." Do 17 you see where I read that? 18 A Yes. 19 Q And what is the basis for that conclusion? 20 A The basis for that conclusion is that the 21 bearings, if there's any sort of imbalance in it, in a 22 rotating machine, that those vibrations would be -- 23 would be carried to the bearings, to the framework. And 24 so that's the weakest link in that system. So the 25 damage would occur there first.</p>	<p style="text-align: right;">89</p> <p>1 A I didn't observe any physical defects, like, 2 cracks or -- 3 Q Okay. 4 A -- or that there was -- there was gaps between 5 the tie rods and the -- I do not know the name of the 6 part that holds the hammer tip. But there was -- we 7 noted there was gaps, I believe there's a bunch of 8 pictures. There's a lot of pictures of those in -- 9 in -- in the file. And so -- so to answer your 10 question, I don't -- I didn't see any sort of obvious 11 physical -- physical damage to it. 12 Q On -- 13 A Let -- let me back up. The physical -- I 14 mean, the physical thing that we did observe, that could 15 indicate that it was damaged was that when we tried to 16 rotate it, it was -- it required a lot of effort. To do 17 it by hand required both Chip and I to do that. 18 Otherwise, for one person to rotate the -- the 19 hammermill had to stand on one of the -- one of the logs 20 and started to rotate. So it's -- it was very difficult 21 to rotate by hand. 22 Q Could that be indicative of another set of 23 bearings that are shot, too? 24 A That could be -- that could be that the 25 bearings are -- are malfunctioned. Yes.</p>



**MILESTONE | REPORTING COMPANY**

TOMORROW'S TECHNOLOGY TODAY

407.423.9900

[www.MILESTONEREPORTING.com](http://www.MILESTONEREPORTING.com)

CORPORATE ORLANDO, FL 32801  
JACKSONVILLE, FL 32256  
TAMPA, FL 33602

Toll Free 855-MYDEPOS



<p style="text-align: right;">90</p> <p>1 Q On page 20, paragraph 6, you say that sometime  2 prior to the first bearing replacements, around 800  3 hours, imbalance and vibration in the hammermill  4 occurred and continued thereafter. Do you see what I'm  5 looking at?  6 A Yes.  7 Q Can you provide me the basis for that  8 sentence?  9 A Yes. The basis for that sentence was that --  10 that they had replaced the fuel tank. There was cracks  11 in the fuel tank. There was records from Caterpillar  12 that the air filter or air housing had cracked. There  13 was also a record that the fuel base or the oil filter  14 base had cracked and needed to be replaced. And -- and  15 I believe one of -- I believe in John VanderHelm's  16 deposition, he stated that after the bearings had been  17 replaced, the machine continued to vibrate, but the  18 vibrations weren't as severe.  19 Q In the next sentence, you say subsequent  20 vibrations were overlooked. See what I'm looking at?  21 A Yes.  22 Q Who are you talking about, overlooked  23 subsequent vibrations?  24 A The operators, the owner -- the owners of --  25 of NuTech.</p>	<p style="text-align: right;">92</p> <p>1 can contribute to the bearing failure as well.  2 Q Okay. Can you think of anything else that  3 would cause rotor imbalance?  4 A Grinding stones, concrete, things that wasn't  5 meant to be ground.  6 Q Is there anything else?  7 A I'm thinking here.  8 Q Is it possible the rotor itself could have a  9 problem?  10 A The rotor could -- the rotor could've been  11 damaged by something. The rotor -- the shaft of the  12 rotor could be banana-shaped, for example.  13 MR. LEIBEL: We've been going about an hour. Is  14 everyone okay if we just keep going and try and  15 finish it? It's about noon but I think I can get it  16 done in probably 15 minutes.  17 MR. EICHMANN: Let's do it.  18 MR. LEIBEL: Okay. Are you okay?  19 THE WITNESS: Yes. I'm -- yes.  20 BY MR. LEIBEL:  21 Q I'm going to hand you what I've marked as  22 Exhibit 6. I will represent to you, Mr. Thomazin, that  23 this is the report of Josh Rogers.  24 (EXHIBIT 6 MARKED FOR IDENTIFICATION)  25 A Yes.</p>
<p style="text-align: right;">91</p> <p>1 Q Is there anyone else who overlooked  2 vibrations?  3 A Not to my knowledge.  4 Q Okay. Do you have an opinion? And I'm  5 looking at paragraph 7 on page 21. Do you have an  6 opinion as to what the source of the rotor imbalance is?  7 A I believe that the source of rotor imbalance  8 could be due to multiple -- could be cumulative from  9 multiple factors.  10 Q Okay. What factors?  11 A One could be -- one could be pushing trees  12 into the rotor, improper maintenance, or lack of grease  13 in the bearings.  14 Q So if the bearings aren't greased, do you  15 believe that'll put the rotor out of balance?  16 A No. No. The bearings will not -- the  17 bearings don't cause the rotor imbalance, but a lack of  18 grease can cause the -- can cause the bearings to  19 overheat and -- and fail.  20 Q Anything else that may be causing rotor  21 imbalance other than pushing trees in?  22 A Yes. Well, let's see. How do I explain it?  23 Yes. The other thing that can cause the rotor imbalance  24 is that worn hammer tips, if they're replaced randomly,  25 that will lead to rotor imbalance, which can -- which</p>	<p style="text-align: right;">93</p> <p>1 Q Have you had a chance to see this before?  2 A Yes.  3 Q Okay. And so generally speaking, I was  4 wondering if you can identify for me -- well, let me ask  5 first: Did you identify in this report any conclusions  6 that you disagree with?  7 A Yes.  8 Q Okay. Which conclusions do you disagree with?  9 A I've turned to page 14 of 15 in the ESI report  10 and the subject heading on that page is "Opinions," and  11 below those -- below those, that subject title is his  12 bullet point opinions.  13 Q Okay.  14 A So I'll just go through each one of those.  15 Q Okay. And let's -- we'll just go -- you  16 identify it, and then I'll ask some follow-up questions  17 and then you can move onto the next one. Is that okay?  18 A Yes. Yes.  19 Q Okay. What is the first opinion that you  20 disagree with?  21 A The first bullet point.  22 Q Okay.  23 A The first bullet point says, "No evidence was  24 found to support that the field service loads  25 experienced by the subject grinder under any in-service</p>



**MILESTONE | REPORTING COMPANY**

TOMORROW'S TECHNOLOGY TODAY

407.423.9900

[www.MILESTONEREPORTING.com](http://www.MILESTONEREPORTING.com)

CORPORATE ORLANDO, FL 32801  
JACKSONVILLE, FL 32256  
TAMPA, FL 33602

Toll Free 855-MYDEPOS

<p style="text-align: right;">94</p> <p>1 condition, including those by the NuTech application had  2 been calculated and/or measured to be understood by  3 DuraTech to support the design of the 5064T horizontal  4 grinder." The subject exemplar was out there grinding  5 all the trees approximately 12 miles away and was doing  6 -- was handling the job well. The 5064T, when it left  7 the factory, was in balance. They also have two other  8 types of track grinders in operation that are grinding  9 as -- grinding wood waste as well. So they have -- they  10 have some knowledge and they have some experience that  11 the service loads experienced by their grinders is --  12 fits the -- fit is -- fits the function of the machine.  13 Q Okay. So what information do you have that  14 the 5064T left the factory with the rotor in balance?  15 What are you relying on?  16 A I'm relying on -- well, for the first 800  17 hours there was -- the bearings -- the bearings had no  18 failure. And the -- the rotor was in balance when it  19 left the factory. They had it -- they had it  20 grinding -- or they -- they didn't grind any wood waste  21 when they visited the facility in July of 2017, being  22 representing -- representatives of Red Barn and NuTech.  23 Q They did or they didn't?  24 A They didn't -- they didn't grind any wood  25 waste.</p>	<p style="text-align: right;">96</p> <p>1 Q Okay. And so the other thing I'm getting at,  2 I mean, if the exemplar grinder was being used five  3 hours a month, I mean, clearly that would be a different  4 expected duty, right?  5 A Yes. That would be a different -- it'd be a  6 different duty cycle, a different maintenance cycle.  7 Q And so if that were true, your reliance on an  8 exemplar grinder or that particular exemplar grinder  9 wouldn't have merit, right?  10 A I believe it would have merit, still. The --  11 the operation and maintenance -- or the performance of  12 the machine depends upon the maintenance, not  13 maintenance and care and operation of that machine. So  14 whether you use it -- whether you're using it two hours  15 a day or 12 hours a day, the -- the health, or the  16 maintenance of that machine in order to keep it running,  17 depends heavily upon how it's maintained.  18 Q So if the evidence showed that that machine  19 was used a total of 12 hours between October of 2019 and  20 the end of February of 2020 when you were there, that  21 would have no relevance to your opinions?  22 A That machine, which -- which machine are  23 you --  24 Q The exemplar 5064.  25 A That would -- in terms of the total hours?</p>
<p style="text-align: right;">95</p> <p>1 Q And it's your understanding that -- that 5064T  2 had never ground wood waste before?  3 A I'm -- I'm -- do not know what it did before  4 that. According to the testimony, it was -- it was on -  5 - on the -- in their lot. It was a part of their  6 inventory.  7 Q And you say the exemplar grinder, when you  8 observed it, appeared to be handling the job well. Is  9 it fair to say that you're assuming that the exemplar  10 grinder was being used in a manner similar to what the  11 NuTech grinder was being used?  12 A No. I didn't assume it was being used in a  13 manner similar. It was -- it was -- the operator of  14 that machine understood that his paycheck relied on that  15 machine doing its function. So he -- he maintained and  16 cared for the machine in a manner -- well, he maintained  17 and cared for the machine very well.  18 Q Okay. And let me ask my question a little bit  19 differently. It's your assumption that the use of the  20 exemplar 5064 was similar. Meaning the hours it was  21 operated per week, the types of grinding it did. You're  22 assuming that that was -- it's the same between the two  23 machines, right? This one.  24 A Yes. As far as the -- as far as the material  25 you-all introduced.</p>	<p style="text-align: right;">97</p> <p>1 Q Uh-huh.  2 A No, that would -- that would not -- the --  3 well, if they were -- if that time that they were using  4 the machine and they were grinding rocks, that would --  5 that would have, whether or not they are supposed to,  6 that would -- that would have an effect. So if you're  7 talking about the number of hours being comparable  8 between exemplar machine -- between the exemplar and  9 subject machine, that's -- that's, you know, that --  10 that doesn't matter really. So it's the care and  11 operation, and it also helps if it's used for what it's  12 -- what it's grinding.  13 Q But even if that machine only grinds yard  14 waste, you think it's safe to draw a conclusion that  15 that exemplar 5064, the fact that's still operating, you  16 can draw conclusions about the 5064 subject grinder in  17 this case?  18 A Yes.  19 Q And your opinion would be unaffected by any  20 evidence that the exemplar 5064 was not ever used for  21 almond orchard removal?  22 A That would not affect my opinion. If it was  23 never used, it wouldn't affect my opinion. The fact  24 that it's grinding all the trees helps.  25 Q Helps what?</p>



**MILESTONE | REPORTING COMPANY**

TOMORROW'S TECHNOLOGY TODAY

407.423.9900

[www.MILESTONEREPORTING.com](http://www.MILESTONEREPORTING.com)

CORPORATE ORLANDO, FL 32801  
JACKSONVILLE, FL 32256  
TAMPA, FL 33602

Toll Free 855-MYDEPOS

<p style="text-align: right;">98</p> <p>1 A It helps -- it helps to draw conclusions</p> <p>2 between the subject and the exemplar grinder.</p> <p>3 Q The fact that it's capable of grinding almond</p> <p>4 trees, that's all you need?</p> <p>5 A Yes.</p> <p>6 Q Well, are there any other bullets on here, on</p> <p>7 page 14 of Exhibit 6, that you disagree with?</p> <p>8 A The second bullet point follows from the</p> <p>9 first. They -- they couldn't -- they knew that it was</p> <p>10 durable enough to be able to grind almond trees because</p> <p>11 they have the exemplar that is grinding the almond</p> <p>12 trees. So based upon that --</p> <p>13 Q Okay.</p> <p>14 A -- I disagree with that.</p> <p>15 Q And, just wait. So they -- at the time</p> <p>16 DuraTech sold the 5064T to NuTech, they knew that the</p> <p>17 5064T was durable -- was reasonably durable under the</p> <p>18 field service conditions of NuTech?</p> <p>19 A Just based upon the information I know, I --</p> <p>20 it was -- is durable enough to be able to grind up the</p> <p>21 almond trees.</p> <p>22 Q What information do you know? What are you</p> <p>23 relying on?</p> <p>24 A The history of -- the history of the -- the</p> <p>25 products of being used overseas to grind up -- grind</p>	<p style="text-align: right;">100</p> <p>1 Q So is it fair to say, your disagreement --</p> <p>2 it's your opinion that the 5064T didn't need it because</p> <p>3 other grinders don't have it?</p> <p>4 A It's industry practice not to have it. The</p> <p>5 5064 doesn't have it. The Morbark machines don't have</p> <p>6 it. The Mighty Giants don't have it. The Astec</p> <p>7 Peterson machines don't have it. It's -- it's not</p> <p>8 necessary. When the rotor is in balance, the -- the</p> <p>9 vibration isolation system is not necessary, and in fact</p> <p>10 it can be harmful.</p> <p>11 Q Are you aware of any other grinders other than</p> <p>12 ones that you've listed that don't have an isolation --</p> <p>13 impact and vibration load isolation?</p> <p>14 A Those are the ones that I had the time to look</p> <p>15 up.</p> <p>16 Q Which is the next one that you disagree with?</p> <p>17 A The next -- bullet point number 4.</p> <p>18 Q Okay. You know, you don't have to read it. We</p> <p>19 can see it. So what's the basis for your disagreement</p> <p>20 of the fourth bullet point from page 14 of Exhibit 6?</p> <p>21 A Dodge bearing has a non-length bearing</p> <p>22 configurator. So when you go through and fill in the</p> <p>23 information for that online bearing configurator, the --</p> <p>24 the duty life cycle for the bearings, the load ratings,</p> <p>25 and everything is -- is selected. The bearing is</p>
<p style="text-align: right;">99</p> <p>1 other wood waste, other products, yard waste, and also</p> <p>2 the -- the exemplar machine grinding the almond trees.</p> <p>3 Q Are there any other opinions you disagree</p> <p>4 with?</p> <p>5 A The third one. The fact that it was designed</p> <p>6 with inadequate bit leads -- the 5064T grinder was</p> <p>7 designed with inadequate impact and vibration load</p> <p>8 isolation. This lead to excessive bearing wear and</p> <p>9 extensive structural cracking being exhibited throughout</p> <p>10 the machine including the diesel tank. The -- the</p> <p>11 grinder was -- the grinder doesn't need to be designed</p> <p>12 with impact or vibration isolation systems.</p> <p>13 Q Explain that to me.</p> <p>14 A Morbark doesn't -- doesn't have any machines</p> <p>15 with vibration isolation. Astec Peterson, which he was</p> <p>16 referred to -- Joshua, is who I mean by referred to.</p> <p>17 Joshua referred to Astec Peters [sic] or Astec, the</p> <p>18 Astec grinder on page -- 6 of 15, last paragraph, and</p> <p>19 the -- that machine is not equipped with a -- with a</p> <p>20 vibration isolation system. The system that they have</p> <p>21 is an impact release system. And -- and that is a --</p> <p>22 that is a system that's designed to protect the grinding</p> <p>23 chamber, not to isolate the -- the vibrations from the</p> <p>24 rotor from the entire machine.</p> <p>25</p>	<p style="text-align: right;">101</p> <p>1 selected for you and the -- this particular bearing that</p> <p>2 is on the DuraTech 5064 machine is -- is the one that's</p> <p>3 recommended by ABB bearings using their online bearing</p> <p>4 selector.</p> <p>5 Q So if you punch in the load condition data in</p> <p>6 the -- what information do they ask for?</p> <p>7 A They ask shaft size, rotational speed. They</p> <p>8 ask for distance between the bearings. They ask for the</p> <p>9 weight of the rotor. They ask whether or not you want</p> <p>10 an additive to your lubrication, or just a standard</p> <p>11 package. Oh, and the other thing that they want to know</p> <p>12 is the drive belt velocity or the -- the tension on the</p> <p>13 belt.</p> <p>14 Q Is it your opinion that a reasonable</p> <p>15 manufacturer would rely upon an online bearing selector?</p> <p>16 A Yes, they would. They would do that. That</p> <p>17 online bearing selector is provided there for</p> <p>18 convenience. Otherwise, you need to thumb through the</p> <p>19 catalog, which is 720 pages and not get confused as</p> <p>20 you're flipping through the catalog. So it's more</p> <p>21 mistake prone.</p> <p>22 Q Okay. What is your next disagreement?</p> <p>23 A The next three opinions are actually</p> <p>24 observations.</p> <p>25 Q Okay.</p>



**MILESTONE | REPORTING COMPANY**

TOMORROW'S TECHNOLOGY TODAY

407.423.9900

[www.MILESTONEREPORTING.com](http://www.MILESTONEREPORTING.com)

CORPORATE ORLANDO, FL 32801  
JACKSONVILLE, FL 32256  
TAMPA, FL 33602

Toll Free 855-MYDEPOS

<p style="text-align: right;">102</p> <p>1 A I have no disagreement with those.</p> <p>2 Q Okay.</p> <p>3 A The second-to-last agree -- bullet point is</p> <p>4 that the second set of bearings -- the second set of</p> <p>5 bearings would -- would have failed regardless of how</p> <p>6 the first set of bearings failed.</p> <p>7 Q Okay. And what's the basis for that</p> <p>8 conclusion?</p> <p>9 A Well, because -- because the second set of</p> <p>10 bearings failed because the vibration in the rotor was</p> <p>11 already set up prior to something happening before that</p> <p>12 bearing failure at 800 hours, and then the subsequent</p> <p>13 bearing failure for the second set. And we also have</p> <p>14 the exemplar machine.</p> <p>15 Q When you reviewed the materials, when did</p> <p>16 either DuraTech or DuraTech's dealer inform NuTech that</p> <p>17 the rotor was out of balance?</p> <p>18 A I'm trying to remember from the testimony</p> <p>19 of -- that occurred at the first -- well, the -- the</p> <p>20 first set of bearing replacement I think is when they</p> <p>21 made that recommendation. I believe the -- from the</p> <p>22 testimony that rotor was attempted to be balanced four</p> <p>23 times.</p> <p>24 Q So it's your opinion that NuTech just didn't</p> <p>25 follow the manufacturer's recommendations; is that</p>	<p style="text-align: right;">104</p> <p>1 with the ones I just identified.</p> <p>2 Q Okay.</p> <p>3 A Page 6 of 15, where he talked about the Astec</p> <p>4 machine, I provided a reason why I disagree with that.</p> <p>5 Q Okay.</p> <p>6 A That -- that machine actually has an impact</p> <p>7 isolation system which protects the grinding chamber.</p> <p>8 It's not actually a vibration isolation system. And</p> <p>9 then the other thing is -- is that no vibration</p> <p>10 isolation system is needed as long as the rotors are</p> <p>11 balanced -- or as long as the rotor's in -- in balance</p> <p>12 no vibration isolation is even necessary.</p> <p>13 Q Okay.</p> <p>14 A As far as the ceiling design for the bearings,</p> <p>15 the -- the bearing that was chosen by DuraTech was fit</p> <p>16 and proper for its use. The -- the labyrinth design for</p> <p>17 the triton design that he recommends wouldn't work with</p> <p>18 the -- with the operational conditions needed by</p> <p>19 DuraTech. They operate the rotor at 1500 RPMs. The</p> <p>20 triton seal -- the -- the triton seal wouldn't operate</p> <p>21 at that high RPM, and so that wasn't the appropriate</p> <p>22 bearing for that condition. ABB bearings recommends</p> <p>23 this labyrinth design in their catalog and also on their</p> <p>24 online bearing selector. The ceiling design of the</p> <p>25 labyrinth is sufficient because that labyrinth -- that</p>
<p style="text-align: right;">103</p> <p>1 right?</p> <p>2 A Yes. I don't believe that they followed those</p> <p>3 recommendations. They took it -- they took it as -- as</p> <p>4 advisements that they did not -- I do not know</p> <p>5 whether -- I do not know whether they followed them or</p> <p>6 not.</p> <p>7 Q I'm assuming you disagree with the last bullet</p> <p>8 point also?</p> <p>9 A Yes, that's correct. The basis for that is</p> <p>10 that -- that actually the excessive vibration due to</p> <p>11 lack of any isolation elements would actually exacerbate</p> <p>12 any sort of vibrational problems. Your bearings would --</p> <p>13 would wear out faster if the rotor was imbalanced, and</p> <p>14 also had vibrational analysis. The other reason for</p> <p>15 that is that in order to effectively design isolation</p> <p>16 elements, you need to know the frequency of the</p> <p>17 vibration, the amplitude, and the direction. Because if</p> <p>18 you just put in isolation elements without knowing</p> <p>19 anything else, they could be the wrong set, and they may</p> <p>20 -- they may amplify that vibration which would have</p> <p>21 caused problems.</p> <p>22 Q Is there any other opinions or conclusions</p> <p>23 that you disagree with?</p> <p>24 A No. This is -- these are all -- these were</p> <p>25 the opinions that he provided. No. I disagree with --</p>	<p style="text-align: right;">105</p> <p>1 labyrinth design is -- provides a long pathway before</p> <p>2 any contaminants can enter into the bearing -- into the</p> <p>3 bearing housing. So the -- so the only way -- so the --</p> <p>4 the way that the contaminants get inside to the grease,</p> <p>5 inside the bearing chamber, is either through no</p> <p>6 greasing, lack of grease, because it -- that -- the dirt</p> <p>7 and debris and grit has to travel a long way before it</p> <p>8 can get to the inside of that bearing. So the -- the</p> <p>9 grease in that labyrinth design serves two functions. It</p> <p>10 not only lubricates the ball -- the spherical bearings</p> <p>11 in there, but it also provides a seal by plugging that</p> <p>12 labyrinth, so that the contaminants and moisture and</p> <p>13 grit cannot enter into that interior portion. So -- and</p> <p>14 as far as vibration goes -- stiffness, you know, the</p> <p>15 stiffness is actually a good thing. Every mechanical</p> <p>16 system has some sort of damping in it already. So</p> <p>17 having a tract system opposed to a wheeled system is</p> <p>18 actually beneficial, because the tracts add stiffness to</p> <p>19 the frame, which in -- which changes the fundamental</p> <p>20 frequency of the system. The tract system that they</p> <p>21 have -- has outriggers on it, and when those outriggers</p> <p>22 are deployed, the -- they effectively increase the</p> <p>23 stiffness of that machine as well. And it -- you, the</p> <p>24 operator, can use those hydraulics -- outriggers to lift</p> <p>25 the machine so that the wheels are clear of the ground.</p>



**MILESTONE | REPORTING COMPANY**

TOMORROW'S TECHNOLOGY TODAY

407.423.9900

[www.MILESTONEREPORTING.com](http://www.MILESTONEREPORTING.com)

CORPORATE ORLANDO, FL 32801  
JACKSONVILLE, FL 32256  
TAMPA, FL 33602

Toll Free 855-MYDEPOS

<p style="text-align: right;">106</p> <p>1 So those tires would have no damping function 2 whatsoever. 3 Q When you say "outriggers," are you talking 4 about the hydraulic jacks that -- I just think of, like, 5 campers that have -- 6 A Yes. 7 Q -- stabilization jacks. 8 A Yes. Those are the -- those are the hydraulic 9 cylinders that are attached to a -- a pad and they -- 10 they lift the machine. And they're located on all four 11 corners of that machine at approximately the same 12 attachment points where the exterior portions of the 13 tract machine connects. 14 Q Okay. Anything else? 15 A I believe we've -- I believe we've covered it. 16 Q Okay. Do you have any opinions that you have 17 not put in your report or discussed with me today? 18 A Yes, sir. 19 Q What's that? 20 A Worn out hammer tips that are randomly 21 replaced -- randomly replaced cause -- can -- which -- 22 which can -- can cause rotor vibration and contribute to 23 bearing failure. 24 Q Anything else? 25 A That's -- that's the only other -- that's the</p>	<p style="text-align: right;">108</p> <p>1 CERTIFICATE OF OATH 2 3 STATE OF FLORIDA 4 COUNTY OF ORANGE 5 6 I, the undersigned, certify that the witness in the 7 foregoing transcript personally appeared before me and 8 was duly sworn. 9 10 Identification: Produced Identification 11 12 13 14 15 16 _____ 17 ASHLEY MCLEAN 18 Court Reporter, Notary Public 19 State of Florida 20 Commission Expires: 05/21/2022 21 Commission Number: GG 220075 22 23 24 25</p>
<p style="text-align: right;">107</p> <p>1 only -- thing there I have that I did not put in my 2 report. 3 MR. EICHMANN: I'm not going to ask any 4 questions today. 5 MR. LEIBEL: Mr. Thomazin, you have the right 6 to read and sign your deposition and I know you've 7 given enough, you understand what that is. Would 8 you like to read and sign? 9 THE WITNESS: Yes, I would. 10 MR. LEIBEL: Okay. Thank you. 11 MR. EICHMANN: Okay. Thanks, Steve. 12 COURT REPORTER: You want me to e-mail it to 13 you for him to read and sign? 14 MR. EICHMANN: It's on my card. So yeah, just 15 send it to me and I'll make sure he gets it and 16 reads it and signs it. 17 COURT REPORTER: Perfect. 18 (OFF THE RECORD) 19 COURT REPORTER: Do you want to order today? 20 MR. LEIBEL: Condensed, and an e-tran. 21 COURT REPORTER: Condensed and an e-tran. Yes, 22 sir. 23 (DEPOSITION CONCLUDED AT 12:22 P.M.) 24 25</p>	<p style="text-align: right;">109</p> <p>1 C E R T I F I C A T E 2 3 STATE OF FLORIDA) 4 COUNTY OF ORANGE) 5 6 I, ASHLEY MCLEAN, Court Reporter and Notary Public 7 for the State of Florida at Large, do hereby certify 8 that I was authorized to and did report the foregoing 9 proceeding, and that said transcript is a true record of 10 the testimony given by the witness. 11 12 I FURTHER CERTIFY that I am not of counsel for, 13 related to, or employed by any of the parties or 14 attorneys involved herein, nor am I financially 15 interested in said action. 16 17 Submitted on: March 18, 2020. 18 19 20 21 22 23 _____ 24 ASHLEY MCLEAN 25 Court Reporter, Notary Public</p>



**MILESTONE | REPORTING COMPANY**

TOMORROW'S TECHNOLOGY TODAY

407.423.9900

www.MILESTONEREPORTING.com

CORPORATE ORLANDO, FL 32801  
JACKSONVILLE, FL 32256  
TAMPA, FL 33602

Toll Free 855-MYDEPOS



110	
1	ERRATA
2	
3	PAGE LINE CHANGE REASON
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	I have read the entire transcript of my deposition taken
17	in the captioned matter or the same has been read to
18	me.I request that the following changes be entered upon
19	the record for the reasons indicated. I have signed my
20	name to the Errata Sheet and authorize you to attach the
21	changes to the original transcript.
22	
23	
24	_____
25	Date NAME

111	
1	
2	
3	
4	
5	Read and Sign Letter
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	



407.423.9900

**MILESTONE | REPORTING COMPANY**  
TOMORROW'S TECHNOLOGY TODAY

[www.MILESTONEREPORTING.com](http://www.MILESTONEREPORTING.com)

CORPORATE ORLANDO, FL 32801  
JACKSONVILLE, FL 32256  
TAMPA, FL 33602

Toll Free 855-MYDEPOS